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PUBLISHERS' NOTICES.

THE edition of NEW REMEDIES this month is 6,000 copies.

There is more reading matter in NEW REMEDIES than in any other journal published in the interest of the Drug Trade.

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Advertisers are referred to a bibliographical notice, in this number, of "Rowell's Newspaper Directory for 1876," for information which will interest them.

Succeeding numbers of NEW REMEDIES will contain very thorough and critical descriptions of the various exhibits at the Centennial of interest to the trade, classifying them so as to bring, as far as possible, all articles of similar character together.

EDITORIAL.

THE collection of animals at the Central Park in this city is, to many visitors, one of its most attractive features; and no one has yet thought to question the propriety of spending money for its support or for the erection of the buildings necessary to the comfort and health of its inmates. In every annual report of the Park Commissioners we find a long list of donors whose contributions of birds and animals have not only helped to fill the gaps caused by the deaths that occur so often among animals in confinement; but have really been the main source of supply. On pleasant afternoons, especially on holidays, the spaces about the cages and tanks are crowded with admiring visitors, who return week after week and spend hours in watching the strange things which they contain.

We are not of the number of those who believe it to be the *duty* of governments and municipal corporations to provide amusements for people who are either too poor or too ignorant to amuse themselves; nevertheless it is rarely that we find the space and facilities for caring for a natural-history collection in other hands, and still more rare to find the requisite ground so well located as it is in the Park. Aside from the influence exerted by a well arranged and public natural-history collection upon the intelligence of all classes of people, the inducement it offers to the poorer classes to frequent a public park on holidays, rather than gardens of more questionable character where beer and liquor are necessary accompaniments, and disturbances of the peace and accidents the natural results, is not to be under-estimated in its influence towards preventing poverty and crime—conditions in which governments and corporations *are* deeply concerned.

The time has been reached when the addition to the museum of a collection of fish and plants should be actively urged, and, if possible, achieved. In England, France, and Germany, the large aquaria which have been established have met with unqualified admiration; and at Brighton and Havre, marine as well as fresh-water fish are successfully exhibited. The Jardin des Plantes and Kew Gardens are now among the most profitable educational institutions of their respective countries; and to their influence can be traced much of the knowledge of botany and materia medica which reaches us through French and English authorities.

One of the most valuable results which would be derived from a botanical garden we have never yet seen mentioned; viz., the information which it might be made to popularize regarding poisonous plants growing naturally about our woods and lanes. The season does not pass when city visitors to our country resorts do not suffer more or less from contact with such plants. The poison-

ous rhus, the seeds of stramonium, the fruit of belladonna and phytolacca, and several of the mushroom species, are common sources of anxiety to the mother who has lived in the country sufficienty long to know them and dread their effects upon her strolling little ones; but how many of the city-raised parents know anything at all of these plants or are able to do more than charge their children to taste nothing, and handle none of the beautiful things that they may find in their rambles?

With but little effort, nearly all of the poisonous plants of our climate could be propagated in such a manner that both parents and children could know them at sight; and the summer visit to the country would thus be deprived of one, at least, of its trials. This argument alone will be sufficient, we think, to secure the popular support of the garden, and the opportunities which it would afford to scientific men for the study of rare and newly recognized plants would secure to its managers the gratuitous services of those whose aid would be necessary to the success of the project.

Several years since, the effort was made by some of our scientific societies to induce the Park Commissioners to establish a botanical garden; but the reaction from the recently-discovered frauds upon the City's Treasury was then too great to permit of any question involving new expenditures being entertained. There is already a good nucleus for such a collection in the conservatory and grounds adjoining the St. Vincent House of Reshment at the upper end of the Park; but it is almost entirely inaccessible to those who have not the luxury of a carriage, and there are many who judge, from its location, that it is in some way connected with the restaurant; and are therefore prevent from enjoying it as they otherwise would.

Once established, there is little fear that the same spirit which has led to the contribution of animals to the present collection would keep the botanical gardens provided with novelties; and a judicious offer of prizes for flowers exhibited by amateurs at monthly fairs, to be held in the buildings, would not only draw crowds of visitors, but would stimulate among the poor, the shop-girls, the dwellers in upper-floors, and the ladies—whose life in metropolitan boarding-houses affords them no pursuit beyond shopping, sight-seeing, and society—a taste for beautiful things which would sweeten their lives, improve their minds, and cost them far less than pleasures which impair both mind and health, but which are now almost their only resource.

We have received several communications from correspondents who do not add their address or signature; by referring to the note in italics at the head of the column of "Notes, Queries, and Answers," they will observe that the condition upon which we engage to answer their questions is that these facts be mentioned. We hardly need to say that they are for our private information and not for publication.

NEW YORK DRUG MARKET.

[*Prices given are for round lots from Importers' and Manufacturers' hands. For single packages an advance would be charged.*]

We regret to be obliged to continue the same old story of dull trade and unsatisfactory prices, but such, nevertheless, is the actual condition of the Drug Market at this writing. Some brightness occasionally breaks through the cloud of discontent that has seemed to hang over us for the last year or so, and even now we suppose some members of the trade are jubilant because their particular article or articles have at last taken a jump. Were it not for these occasional "spurts," business in importing drugs would indeed be discouraging work, and all are waiting and hoping for the good time when sharp advances will be the rule, not the exception.

Opium has been an article of interest since our last, and prices have advanced quite sharply. Advices from Turkey report heavy damage to the crop, from the absence of rains at a critical period, and the estimate of the crop has been reduced from 6,000 cases, to 3,500 cases. This has caused an advance both in Smyrna and here, and holders are now firm at $5.50 gold. Should the estimate of 3,500 cases prove even nearly correct, present prices are low and dealers would do well to secure what stock they may need, as lower prices would hardly be possible.

Morphia has not changed as yet, P. and W. being still obtainable at $4.00, which is a trifle lower than in our last.

Quinia in steady demand at $2.20 per oz. for American brands. French can be had at a shade less, say $2.15.

Quicksilver dull and lower, sales having been made in quantities as low as 58 @ 60c. gold, and one large lot at a still lower price.

Mercurials have all been reduced, and are quoted from manufacturers as follows, viz., Blue Pill 46c., Calomel 80c., Corrosive Sublimate 70c., Mercurial Ointment ⅛ and ¼ 42c. and 53c., Red Precipitate 90c., White do. $1.05.

Borax quiet at previous prices, being quoted at 11¼ @ 11½c. for City, 10¾ @ 11c. for California.

Blue Vitriol without change, selling as wanted at 8 @ 8¼c. for prime brands.

Citric Acid dull and lower, 73 @ 74c. gold being about the market.

Camphor in fair demand and very firm at 27c., city refiners refusing to shade this price for any quantity.

White Sugar Lead in less active demand, but there is no change in price to note, 17½ @ 18c. being still obtainable.

Chlorate of Potassium is a little easier, prime brands being obtainable at 21¼c. gold, although 21½ gold is still asked for Greenbank.

Iodide of Potassium about as last reported, P & W. and C. P. & Co. selling in bulk at $2.25, bottles, $2.33.

Prussiate of Potassium can be obtained at 26 @ 27c. for prime American yellow.

Carbonate of Ammonium a shade easier, prime white English selling at 13⅜ @ 13½c. gold, in lots, American in casks 16c. currency.

Oxalic Acid lower, being obtainable from store at 10c. gold.

Tartaric Acid in moderate demand at 42½c. gold for crystals, powdered, 49c. currency.

Santonine has advanced, owing to the scarcity and high price of Oil Wormseed. The price asked now is $12.12½ @ $12.25.

Cuttle-fish Bones scarce and higher, 28c. being now demanded in small lots, holders being unwilling to sell out even at that.

Venice Turpentine dull, and but little demand exists. 17c. is the general asking price.

Burgundy Pitch held firmly by a few holders at 8c.

Balsam of Copaiba weak and lower, holders being anxious to push sales. At this writing it can be obtained at 62½c. in bbls., which is a lower price than has been reached for a long time.

Balsam of Tolu decidedly lower, being obtainable at $1.65.

Cubebs can be bought at 9½c. for good quality.

Squills are selling at 9½c. for prime white, which is lower.

Manna. Small Flake has advanced to 70c. by the case, Large Flake, as last reported, $1.00 @ $1.05.

Aloes. Cape without change, being held at 13 @ 14c. Socotrine 35 @ 60c., as to quality; Barbadoes in higher stock and held for 26c.

Gum Assafœtida quiet, the demand having fallen off. Good quality can be had at 12 cts., prime tears 13 @14 cts.

Gum Arabic has not changed with the foreign markets, being still held here at about former prices.

Rhubarb has been very much excited, and nearly all the stocks here have been taken up at higher prices than have ruled for some time past. At this writing, holders demand prices about one hundred per cent. higher than when at our last issue, the range being about $1.50 @ $2.25, instead of 65 cts. @ $1.25. A scarcity in the London markets and active demand there has been the leading cause of the advance. Prime powdered Rhubarb has sold at $1.25; 40 @ 50 cts. being an average price before the advance.

Hellebore Root has been in large demand, and the market has been almost cleared of available stocks. Price is nominally 50 cts. for powdered, and but little obtainable at that.

Parreira Brava Root can be bought at 50 cts.

Rhatany Root of good quality sells at 16 cts., extra grades 25 cts.

Sarsaparilla Root. Honduras, prime 31 cts. Mexican 12 @ 12½ cts.

Ginseng in small stock, no new crop having been received. A small lot recently sold at $1.25.

Ginger. Jamaica, both bleached and unbleached, are lower and in good stock. Bleached can be bought for 19½ @ 20 cts. and unbleached 18 @ 18½ cts.

Senna. Alexandria has been in active request, principally by dealers here, who have bought largely under advices of very high prices in Egypt and London. For good sorts Alexandria 20 @ 22 cts. is wanted. Garbled 35 @ 50 cts., with small stock of really choice.

Ergot arriving freely and in good stock. Sales have been made as low as $1.25, although $1.37½ @ $1.50 is nominally asked,

Tonca Beans shortly after our last issue advanced to $3.50, the entire stock consisting of but a few hundred pounds. A large quantity has, however, just come in, and prices are merely nominal at $1.00 @ $1.25.

Cassia Buds are in large stock and have been declining steadily. Just now they can be bought at 35 cts., but holders are weak.

Star Anise Seed in full stock, and dull. Some holders ask 23 cts., but 20 cts. would probably buy.

Canary Seed has fluctuated between $5.25 and $5.75 for Smyrna. At the close it is weaker, and prime Smyrna can be bought at $5.25, prime Dutch $5.75 @ $6.00.

Hemp Seed as last reported, being firm at $1.85 @ $1.90.

Aniseed. Italian sells as wanted at 15 @ 16 cts. for good quality sifted.

Castor Oil can still be had at 11 cts. for Baker's A. A. and prime Western brands, but holders are much firmer. Most of the oil now held here by second hands cost much higher, and as some of the manufacturers refuse to make at present figures, the market has stiffened up.

Olive Oil can be bought at $1 17½ @ $1.20 for pure Spanish. Prime salad oil $2.50 @ $3.00 per gal. in cans.

Oil Lemon in good demand, but somewhat weaker. Sales have been made at $3.50 gold for Sanderson's, but at this writing $3.37½ gold would be accepted.

Oil Bergamot decidedly weaker, the nominal price of $4.50 gold for Sanderson's being no longer obtainable. For round lots $4.30 gold would be accepted.

Oil Anise higher in China, and consequently higher here. $2.00 gold is now asked.

Oil Cassia is also higher in China, but little change has taken place here, the only effect being to make holders somewhat firmer at the price, 92½ cts. gold.

Oil Peppermint, H. G. H. can be bought at $3.87½ @ $4.00. H. & P. $3.75. Can oil sells at $3.25 @ $3.37½.

Oil Sassafras has arrived largely and prices are lower. 52 cts. would buy prime oil in cans.

M. Charriere, the famous cutler and instrument maker, of Paris, has recently died at the age of seventy-four years, having for several years past been obliged to live in quiet on account of his malady.

MATERIA MEDICA.

Falsification of the Officinal Cinchona Flava.

M. STANISLAS MARTIN, in the *Bull. Gén. de. Thérap.* of March 30, calls attention to a falsification of powdered yellow bark which is practised in France. Sweet and bitter almonds are enveloped in a leaf-like pellicle which botanists call a spermoderm, the color of which is due to yellow cells that are extremely minute and reflect the light brilliantly. When almonds that have been freed from their woody coverings are shaken in mass in a cotton bag or wooden box, the pits are rubbed against one another, and the cells covering them are detached and form a powder, which used to be thrown away as useless, but which to-day sells for fifty francs per 100 kilogr. and is mixed in variable proportions with the powder of Cinchona flava, when sent to druggists and *épiciers*, where there is no pharmaceutist. To recognize this fraud, a pinch of the powder should be spread on blue paper and examined with a microscope. If brilliant points are distinguishable, there is great probability that there has been falsification, the powder of cinchona being dull and reflecting no light.

Lupine.

LUPINE exists in two varieties: *Lupinus sativus*, or white lupine, and *L. sylvestris*, or wild lupine; the former is a native of Asia, and the latter of Spain. The seeds of both are bitterish, but both are used as food. The seeds of white lupine are also employed as an emenagogue, vermifuge, and externally in resolvent poultices.*

R. Bellini has made some experiments with these seeds which were published in *Lo Sperimentale*, during 1875, and the following are his conclusions:

1. The seeds of lupine contain an active principle, soluble in water, which can be driven out by boiling.

2. This principle is toxic, both to the lower animals and man.

3. It is not directly irritant to surfaces on which it is applied.

4. When it passes into the circulation, it exerts an effect on the brain, vaso-motor, and sensory nerves of the voluntary muscles, and the muscle fibres.

5. The character of the phenomena produced by it indicates that its action is enfeebling.

6. The peripheral expansions of the sensory nerves on the parts most affected.

7. The poison produces no profound change in either the nervous or muscular tissues, since the effects of its depressing action last only while the poison is in the organism, and are counteracted by stimulants.

8. The decoction of lupine should not be used either as a bitter, a stomachic tonic, or a vermifuge.

9. As a parasiticide, the decoction may be employed externally, without danger, either on animals or man.

Bromohydrate of Quinia.

AFTER Latour first combined bromohydric acid and quinia, Broil expressed the formula of the neutral quinia salt as $C_{40}H_{24}N_2O(HBr)2HO$. This combination crystallizes in long, white, sometimes yellowish crystals, with rectangular faces, and is more soluble than the sulphate.

The greater solubility and percentage of alkaloid gives this combination the preference over the other salts of quinia, making it suitable for hypodermic injection; moreover, both constituents, the quinia as well as the bromine, act as neurotonics.

The effect of larger doses is, that of quinine namely, headache, tinnitus, deafness; that of bromine being muscular weakness and drowsiness. For hypodermic use, the author recommends a solution in the proportion of one to ten, in alcoholized water, and uses one-third less to produce curative results than he would of the sulphate of quinia.

The author used the remedy with good effect in hysterical vomiting [one case].—*Journ. de Thérap.*, No. 13, 1875,

Polygonum Amphibium.

THIS plant has been discovered to contain a very large amount of tannin. Samples have been analyzed by Prof. Aughey, of the University of Nebraska, showing that it contains tannin in the roots, to the extent of 21.75 per cent., and in the stems to about 17.10 per cent. Sumach yields about 16 per cent., and oak bark from 8 to 12 per cent. It is believed that the plant may be of great commercial importance to the West, as it can easily be grown from the seeds, and yields from three to six tons per acre.

Cotton Wadding instead of Sponge.

M. GUYON recommends the following mode of preparing wadding, to be used instead of charpie and sponge, for dressing and cleansing wounds: Cut the wadding into pieces as large as the hand, and plunge them in a basin of carbolated water, 1 to 50, taking care to turn and press them so as facilitate imbibition. When thoroughly impregnated (which will be in about five minutes) press the water out of them, roll them into balls, and place them in a well-stoppered, wide-necked bot-

* REDWOOD ("Supplement to the Pharmacopœia," p. 227). CHAMBERS (Treatise on "Food and Dietetics," p. 258) classes lupine among the lentils, and, quoting Baird's "Cyclopædia of Natural Science," says, "The seeds of the Egyptian white *lupine* (*Lupinus ternis*) are used by the Egyptians as food, although it is difficult to rid them of their bitter taste."

tle. When required for use they have only to be re- oaked at the moment of dressing. The quanty of water which they will absorb is equal to that taken up by sponge.—*The Doctor.*

The Coca Leaf.

M. BOUCHARDAT says that the leaf of coca contains an essential oil which is of an aromatic odor, coupled with the flavor of the fresh plant. The slightly acid and bitter taste of the leaf may be attributed to the presence of tannin, and to an alkaloid somewhat analogous to atropine [?], termed "Cocaine." An infusion made with the leaves is perfectly clear and of a beautiful yellow. It has an agreeable odor, and, like the leaves themselves, is slightly acid and bitter.

Many French people use the coca instead of tea, its infusion being more stimulating, and, at the same time, less expensive. Joseph Bain, a "pharmacien," was one of the first to introduce it into medicine in France in the forms of elixir and wine, which are frequently prescribed in cases of prolonged convalescence or great prostration of strength.

The Sunflower and its Uses.

THE cultivation of the sunflower (*Helianthus annuus*) is carried on extensively in some countries, as central Russia and Hungary, chiefly for obtaining the oil of the seeds, which forms an excellent salad-oil, while the residuary cakes find employment as food for cattle. The yield is so large and the labor connected with its cultivation so trifling, that it deserves the attention of agriculturists. Each acre of land may easily contain 16,000 plants without at all interfering with each other. Numerous trials have shown that each fresh plant weighs on an average 10½ pounds including the seeds, which amount to about ½ pound. The yield of one acre may be stated as 80,000 lbs. of stems, 80,000 lbs. of leaves, flowers (excluding seeds), and roots, and 8,000 lbs. of seeds. The stems and leaves contain a considerable amount of potassium nitrate, and are therefore easily reduced to ash, which will yield to water about 2,300 lbs. of potash. There are two varieties of the plant, one containing white and the other black and white seeds. The former contain from 25 to 28 per cent. of oil, the latter from 16.25 to 26 per cent.; but the amount of kernel varies in the two sorts. The average yield from 100 parts of kernel is about 44.6 per cent. of oil. But it must be understood that this percentage is the actual amount existing in the seeds, and extracted with ether. In practice, especially when pressure alone is resorted to, the actual yield will be somewhat less. Analysis of the ash of the plant (excepting the seeds) yielded the following results; the corresponding figures obtained from an analysis of the ash of the seeds are added after each constituent in brackets; potash, 47.687 [14.475]; soda, 1.092 [6.119]; lime, 9.851 [6.811]; magnesia, 5.291 [10.960]; alumina, 0.280 [0.227]; ferric oxide, 0.170 [1.427]; chlorine, 5.004 [2.162]; sulphuric acid, 1.344 [2.086]; phosphoric acid, 6.968 [31.848]; silica, 0.687 [10.811]; carbonic acid, 21.626 [13.074].—*Arch. d. Pharm.*, 1876, 289.

Persian Opium.

A MEMORANDUM in a recent consular return to the British Parliament on the trade of Muscat and Persia gives some interesting information respecting the cultivation and exportation of opium from Persia.

Persian opium is cultivated principally in Yezd and Ispahan, and partly in the districts of Khorasan, Kerman, Fars, and Shushter.

The opium grown in Yezd is considered to be better than that raised in Ispahan and elsewhere, owing to the climate and soil of that place being better adapted for the growth of the drug. But the district of Yezd, notwithstanding the existence of a large cultivable area, is not capable of any considerable extension of the cultivation of opium, owing to the insufficiency of the means, both natural and artificial, of irrigation.

Ispahan, however, differs from Yezd in this latter respect, as it abounds in streams and rivers, and is capable of greater extension of the cultivation of the drug, but the cultivation of cotton and cereals take up a large part of those resources, and tends considerably to reduce the culture of opium.

A few years ago, the profits of the opium trade having attracted the attention of the Persians, almost all the available or suitable ground in Yezd, Ispahan, and elsewhere was utilized for the cultivation of opium, to the exclusion of all cereals and other produce. It was then supposed by some that the opium cultivation would be indefinitely extended in Persia. But the desire of the natives to enrich themselves by the cultivation and growth of a profitable article of trade caused them to neglect to provide for the necessaries of life; and this, combined with drought and other circumstances, resulted in the famine of 1871–72. The costly experience then gained, has made the Persians more careful and provident, and they are now using a limited space for the cultivation of opium.

The largest produce of opium in Persia, in any one year, occurred in 1869–70; it then amounted to 2,600 cases. In 1871–72, consequent on the drought and famine, it fell to 870 cases; but subsequently it increased again, and the quantity exported between Jan. 1 and Dec. 31, 1874, was 2,002 cases. Of these, 1,339 cases were shipped to Hong Kong, 80 to Singapore, and 583 to London. —*Pharm. J. & Trans.*, May 6.

Preservation of Hops.

THE quality of hops is of paramount importance to brewers; the fresher the hops the better will be the quality of the beer produced. One of the most usual methods of preserving hops has been its treatment with sulphur-vapor; but lately a new method has been introduced by a German,

which consists in pressing fresh hops into strong metallic boxes, and hermetically sealing. Extensive trials have shown that hops preserved in this manner perfectly preserve color, odor, and weight, and are in no way inferior to fresh hops.—*Der Bierbr.*, 1875, 22.

PHARMACY.

Oleum Morrhuæ Ferratum.

O. WACHSMUTH proposes to prepare cod-liver oil with iron in the following manner: One part of a hot 10 per cent. solution of pure ferrous sulphate is added, under constant stirring, to two parts of a hot 5 per cent. solution of dried Castile soap. Immediately there is produced a greenish-gray, resinous mass, iron-soap, which attaches itself to the stirrer and the walls of the vessel, while the almost clear liquid contains the alkaline sulphates produced by the decomposition, and the excess of the ferrous sulphate. The liquid is poured off, and the tough iron-soap well-kneaded, and washed with hot water. It is then drained, and, being still in the same vessel, dried upon the steam-bath. The yield is 85 per cent. of the Castile soap employed. By gradual addition of the requisite amount of cod-liver oil, and warming, the ferrous (or rather ferric) oleate is easily dissolved, producing a clear solution of deep brown color, which does not require filtration.

The ferrous oleate (iron-soap) produced in this decomposition is first of a greenish-gray color, but absorbs oxygen quite rapidly, and turns brown. Its taste resembles that of ordinary soap. It is soluble in ethereal and fatty oils, ether, and chloroform, but insoluble in water, alcohol, and glycerine; and when ignited leaves 12 per cent. ferric oxide.—*Arch. d. Pharm.*

On some Properties of Ferric Chloride.

DR. H. ALMÉS has made some interesting experiments, the results of which confirm those previously given by C. Pavesi, on the uses of ferric chloride as an antiseptic and antiferment:

1. Meat and fish are preserved by being dipped into a dilute solution of ferric chloride; on exposing them afterwards to the air they dry up to a hard mass, devoid of bad odor.

2. A small quantity of ferric chloride added to milk separates the casein, and the serum remains undecomposed for a long time.

3. Urine mixed with it turns whitish, and does not become putrid.

4. Blood is at once coagulated by even a small quantity, and does not decompose.

5. Grain seeds immersed for twelve hours in a solution of ferric chloride lose their vitality.

6. Paper saturated with solution of potassium iodide turns blue when ferric chloride solution is dropped upon it; the same color is produced upon paper saturated with tincture of guaiac.

7. Mustard seeds, or bitter almonds, when treated with ferric chloride, lose their power of producing essential oil.

8. Flour, grape juice, honey, and sugar do not undergo fermentation in presence of ferric chloride.

9. The preparation of mercurial ointment is exceedingly accelerated by addition of a small quantity of ferric chloride.—*Zeit. Oest. A. V.* from *Journ. de Méd. de Bruss.*

Non-actinic Glass.

MUCH ingenuity has been bestowed upon devices for excluding the chemical rays of light from substances which are readily affected by it, and there is hardly any color in the spectrum which has not at some time or another been proposed as the proper color for glass to keep such articles in. But since the nature of light and the particular properties of its component tints has become better understood, and since the success, artistically and financially, of certain arts and trades has become dependent upon the absolute and perfect exclusion of all chemical rays from the substances to be protected, the number of useful tints has dwindled down to one or two, and these are found to be in practice almost all-sufficient. The chemist, who desires to keep certain chemicals unaltered, or must run the risk of having them thrown back on his hands, and the photographer, who cannot manipulate his silvered film unless protected from actinic light, both employ dark-yellow or orange glass for this purpose. We might have said they *should* employ; for although the latter does so simply because experience has taught him that his success in business depends upon it, the former has not yet thoroughly become converted to it, partly because he does not always himself notice the deterioration which light has effected in his products, and partly through a sort of abhorrence of innovation. There is perhaps yet another cause, namely the loss in showiness of his wares were they to be hidden in sombre brown bottles;—he prefers to have them shine out from, and be shone upon in, brilliant white glass bottles, to the frequent and manifest deterioration of their contents. How carefully some of our medical friends indicate at the bottom of some of their prescriptions: "Dispense in blue vial," or some similar direction, and how faithfully some of our pharmaceutical friends carry out the instruction, both believing, in their innocence, of having shut out the intruder. But we trust they will see the error of their ways and sin no more. Unless the blue be of such intensity as to practically exclude *all light*, it is no better than perfectly white glass, for the actinic rays will pass through it without opposition, although the light-producing rays will be partially shut out. It is perfectly easy to produce an excellent photograph in a room with *blue*

skylight, although it may be dark enough to make reading difficult. The only tints which filter out the actinic rays are those passing from dark-yellow through orange to ruby. The nearer this color is reached the more perfect will be the exclusion. Ruby-colored glass of fine color is produced by the addition to melted glass of suboxide of copper or of gold; but the latter is rather expensive, and is generally restricted to fancy glass, to window-panes for photographic dark-rooms, or to the signal light for vessels.* There is, however, a disadvantage connected with this tint which prevents its general employment; namely, it has such an excessively tiring effect upon the optic nerve as gradually to affect the eyesight, and even the brain. It is impossible to work long behind it. For this reason orange-colored glass is preferred by photographers, although it does not absolutely exclude the actinic rays.

It is occasionally desirable to ascertain the usefulness of a sample of colored glass as to its power of excluding these rays. The following simple method is given by Le Nève Foster, in the *Brit. Journ. of Photography:* On placing upon a dead-black support a narrow strip of white paper, and on top of this a glass prism, a complete spectrum in brilliant colors is observed, provided the arrangement is exposed to strong enough light. If, now, the particular glass to be examined be interposed between the prism and the strip of paper, those rays of the spectrum, which the colored glass absorbs, will have disappeared.

On examining in this manner those varieties of yellow glass which are in common use among photographers for their dark-room windows, we see at once that not all blue or other chemically active rays are excluded, a portion of some of these still remaining visible. If we, however, examine a ruby-colored glass in this manner, all blue or other actinic rays of the spectrum disappear and are replaced by black, a proof that all these rays are excluded and that this kind of glass is preferable to all others. Instead of the strip of white paper, a piece of bright silver wire may be used.

Soluble Albuminate of Mercury for Hypodermic Use.

PROF. H. v. BAMBERGER, of Vienna, has proposed a new mercurial compound, namely, the albuminate, as a most rapid and active hypodermic remedy. This compound is insoluble in water, but is, when fresh, readily dissolved by a moderately concentrated solution of sodium chloride. Such a solution has a neutral or very faint alkaline reaction, and behaves towards nitric acid, tannin, potassium ferrocyanide, alcohol, and heat exactly like a solution of ordinary serum albumen; but acetic and tribasic phosphoric acid precipitate it completely.* If a solution of mercuric chloride (corrosive sublimate) be added to an albuminous liquid, mercuric albuminate is thrown down; on transferring this to a filter, allowing to drain, and washing, it will be found to be much less soluble in solution of sodium chloride; indeed the diminution of solubility is in direct ratio to the amount of exposure and washing of the precipitate. The usual albuminous fluids, when precipitated with an insufficient quantity of mercuric chloride, still show traces of mercury in the filtrate, owing to the fact that the small quantity of accompanying chloride keeps some of the mercuric albuminate in solution. Without entering into a detail of the various preliminary experiments, it will be sufficient to state here that it was necessary to prepare a solution absolutely free from mercuric chloride, and at the same time of such a strength in mercuric albuminate as would be most convenient for various degrees of dilution. The first point to be attended to is the preparation of a clear solution of albumen. This may be effected by freeing the white of hens' eggs from its membranes, diluting with 1½ parts of water, straining through muslin, and then filtering through glass-wool [or through asbestos]. In this manner a clear, or at most only slightly opalescent, solution is obtained.

The strength of the solution of mercuric albuminate is intended to be 0.010 gm. (0.154 grs. or nearly ⅙ gr.) in 1 cc. (16.3 min.); and the solution itself is prepared as follows:

To 100 cc. of a filtered solution of white of egg (containing 40 cc. of albumen and 60 cc of water) there are added 60 cc. of a solution of mercuric chloride (containing 5 per cent. ,or 3 gm. $HgCl_2$), and 60 cc. of a solution of sodium chloride (containing 20 per cent., or 12 gm. NaCl); finally 80 gm. distilled water are added, which brings the bulk of the solution up to 300 gm., containing 0.010 $HgCl_2$ in every cubic-centimetre. [A solution of mercuric albuminate, containing ⅙ gr. in 15 minims—the amount intended for one injection, and calculated upon American weights and measures—would be obtained by adding to 3 fl. oz. of filtered solution of white of egg (containing 1⅕ fl. oz. of the latter) a solution of 41 grains of mercuric chloride in 864 minims of water; to the mixed solutions, containing the precipitated mercuric albuminate, a solution of sodium chloride, measuring 864 minims and containing 164 grs. NaCl is added, and finally enough water to make the bulk of the solution measure 9 fl. oz.]

In regard to the keeping qualities of the solution, Prof. Bamberger had some doubts at first, b[illegible] found afterwards that samples of the solution which had stood in a heated room during winter had undergone no change. In some cases, however, especially where an excess of albumen had been employed, a small white deposit, chiefly of calomel, was found to have taken place. In such

* The color is generally only superficial; it is "*flashed*," according to glass-makers' terminology. *Pot-ruby*, which is produced by melting the gold with glass, is too expensive. The distressing effects of ruby glass upon the eyes may be tempered by placing a green glass between it and the operator.

* This is not the case with serum albumen.

a case it is only necessary to pour off the clear liquid, or to filter, as the real percentage of mercury has not been notably diminished.

In an article published subsequently in the same journal (page 177) Dr. E. W. Hamburger suggests a few modifications which are the results of some experiments made with this preparation. The slowness with which the albumen, even when diluted, passes through the filter, and its opalescence, are due to precipitable albumen, which should be removed by the careful addition of an acid. To determine the exact quantity of the latter necessary, Prof. Huppert's method is recommended, which is as follows:

The well-beaten white of egg is diluted with 1½ volumes of water and strained through muslin. A small quantity of the filtrate is now measured off, diluted to 10 volumes, and quickly filtered through one or more plaited filters. This filtrate is still somewhat muddy. Measured portions of this, say 10 cc., are placed into test-tubes, and to each in succession is added dilute 0.1 per cent. hydrochloric acid, increasing by a fixed measure for each test tube—*e.g.*, 0.1 cc. in No. 1., 0.2 cc. in No. 2., 0.3 cc. in No. 3, etc. It will be found that the opalescence in most of these tubes will be stronger than in the unacidified liquid. This opalescence increases in the various tubes in proportion to the acid added, to a certain point, from which it again decreases, and finally, when too much acid has been added, it disappears altogether. The portion which has the most decided opalescence and the most copious flaky precipitate determines the proper quantity of acid. Supposing 0.2 cc. of acid had been used to produce the first appearance of clouding, and 1 cc. had afterwards been consumed until it had become again clear, that portion to which 0.6 cc. of acid was added would then show the largest precipitate. The original white of egg solution is now measured without further dilution, and to every 10 volumes of it the ascertained quantity (0.6 cc.) of a 1 per cent. (that is, 10 times as concentrated) acid is added. This liquid now may be filtered rapidly and perfectly clear. To the filtrate is added an equivalent amount of sodic carbonate, whereby the alkaline reaction is restored.

Another difficulty occurs in the precipitation of the albumen by corrosive sublimate. It being important to precipitate the albumen as nearly as possible, without however introducing even a trace of an excess of corrosive sublimate, a method of control is necessary. For this purpose the author recommends sodium carbonate. A drop of the mixture containing the mercuric albuminate in suspension is introduced into a solution of sodium carbonate (or a drop of the former placed upon a few drops of the latter on a glass plate), and the precipitate will remain white as long as corrosive sublimate is not present in excess. When the latter is the case, the color of the precipitate will be immediately yellow, reddish, or brown. A small portion of the albumen solution is titrated with a corrosive sublimate solution of known strength, and the exact saturating point determined. In carrying out the subsequent precipitation, the sublimate solution is added 0.2 cc. short. —*Zeit. d. Oest. Ap. Ver.*, 1876, 147, 177.

Extraction of Vegetable Juices by Ether.

Mr. Legrip has proposed a new method for completely exhausting fresh vegetable substances of their soluble constituents. It is as follows: The fresh substance, properly comminuted if necessary, is introduced into a vessel or tube provided with spacious apertures at the side and bottom; this is closed with a cork, and provided with a hook. Another larger vessel is filled with ether to such a height that the substance in the other tube when introduced into this outer vessel will be covered by it. The smaller vessel is now introduced into the larger one containing the ether, and suspended from the under surface of the cork closing the latter. After a certain time the ether will have acquired a green color, due to chlorophyll, and below the ethereal layer will be found a dense brown aqueous one, containing all the extractive matter of the substance; any fat or oil will of course remain in solution in the ether. The author maintains that all constituents, except cellulose or ligneous fibre, are in this manner pressed out by the ether, some being retained by the latter in solution, while the others are deposited in a separate layer below. He proposes for this method the term "dietheralysis," (*i.e.*, *dialysis* by means of *ether*).—*Rép. de Pharm.*, 1876, 225.

Preservation of Grain, etc., by means of Bar-Iron or Metallic Mercury.

Mr. Massie has made a number of experiments on a novel method of preserving certain organic substances, the results of which are given below in a condensed form.

He has been in the habit for several years of using an iron bar of about three lbs. weight as a means of preserving barley, rice, and bran in wooden boxes, well closed and of a capacity of about forty gallons. In order to thoroughly test the efficacy of this method, he filled thirteen sets of litre-flasks with various substances, there being three flasks in each set, one of which (*a*) was filled with the substance without any addition, the second (*b*) containing the substance and a bar of iron weighing 80 gm. (1234.6 grs.), and the third (*c*) containing the same substance, together with 5 gm. (77.2 grs.) of mercury.

Barley, rice, bran, and various grades of corn, some of which was badly worm-eaten and partly alive with corn-moths before being placed into the flasks, were found to be entirely altered or destroyed in *a*; in *b* and *c*, however, they were perfectly preserved, and where alteration had already commenced before the addition of the protecting substances, the latter were found to have arrested

the change. The same was found to be the case with ergot, in which case two different sets of flasks were used, one being left open and the other closed; the latter was found to have undergone less change in *a* (unmixed in closed flask); but in *b* and *c* both sets were equally well preserved. Whole Spanish flies were similarly treated, and also found completely protected from change. But the most remarkable case was an experiment with the government biscuits ("hard tack"); the unprotected biscuits (in *a*) were entirely destroyed; the mass resembled a collection of small sieves; in *b* only a few perforations could be seen; and in *c*, which contained the mercury, the biscuits were completely preserved, without a trace of perforation by weevils. Each set was allowed to stand for the space of seven months.—*Rép. de Pharm.*, 1876, 195.

Preparation of chemically pure Grape-sugar.

To prepare chemically pure grape-sugar, several methods have been proposed, among which that of Schwartz deserves the preference, as it accomplishes the object thoroughly and in a short time. It depends upon the fact that alcohol of 80 per cent., containing a trifling quantity of hydrochloric acid, is capable of dissolving considerable quantities of cane-sugar, but deposits, after standing some time, chemically pure grape-sugar in large groups of wart-like crystals. The following is the best way of proceeding: 500 to 600 cc. of alcohol of 80 per cent. (specific gravity 0.864) are mixed with 30 to 40 cc. of hydrochloric acid, and finely powdered, pure white cane-sugar is added, in portions, until no more is dissolved. As soon as this limit has been reached, or even after the deposition of grape-sugar has already commenced, the liquid is poured off clear into another vessel, covered up, and allowed to crystallize. The deposited grape-sugar is transferred upon a filter, washed with alcohol until the washings cease to be acid, and thoroughly dried at the common temperature on blotting paper. It is now again dissolved in boiling absolute alcohol, and the new crop of crystals which separates is grape-sugar of almost absolute purity (reaching very nearly 100 per cent.). The acid mother-liquor may be used over again repeatedly, by dissolving in it fresh quantities of cane-sugar, and treating in a similar manner.—*Zeitsch. f. anal. Chem.*, 1876, 192.

Detection of Uric Acid.

According to Magnier de la Source, the transformation of uric acid into urea and alloxan, which latter, in presence of ammonia, is converted into murexide or ammonium purpurate, may be accomplished much better by bromine-water than by nitric acid. The sediments, which are supposed to contain uric acid, are treated at a moderate temperature with a few drops of bromine-water. The liquid, evaporated on the water bath, leaves on the sides of the vessel a brick-red deposit, which forms a fine blue liquid with a drop of potassa solution, or a purple solution with ammonia, owing to the formation of ammonium purpurate. In this manner the slightest traces of uric acid may be detected; but excess of bromine must be carefully avoided, as otherwise higher oxidation products, namely parabanic and oxalic acids, are produced. The author employed a solution containing 5 or 6 drops bromine in 100 cc. water.—*Rép. d. Pharm.*

Examination of Roasted Coffee for Chicory.

To detect chicory in roasted and ground coffee, it has been recommended to add to the watery infusion a solution of ferrous sulphate and a little ammonia, then to filter and to observe the color of the filtrate. While pure coffee yields a bright yellow filtrate, the presence of chicory will impart to the filtered liquid a dark-brown color. This method is reliable enough in presence of larger quantities of the admixture, but hardly decisive enough for smaller quantities. The result depends also upon the relative volumes of infusion of coffee, and of the reagents.

Instead of ferrous sulphate, Prof. Dragendorff uses for the same purpose a solution of alum, which acts in a similar manner. The same author has lately proposed the employment of cupric acetate, which throws down, in infusion of coffee, a greenish-brown precipitate. The liquid filtered from this precipitate, *within the first five minutes*, has a yellowish-green color, and on addition of more cupric acetate passes through various shades of green. It is therefore advisable to restrict the amount of solution of cupric acetate to a fixed volume. Mr. A. Franz, who has examined the method at the request of Prof. Dragendorff, finds the most advantageous proportion to be: 2 cc. of an infusion of coffee (1 of coffee to 10 of water) and 0.3 cc. of a solution of cupric acetate (of 2.5 to 2.6 %).

Infusions of chicory under the same conditions yield a larger precipitate of a brown color, and a reddish-brown filtrate. Mixtures of coffee with chicory, containing 10 per cent. and more of the latter, could easily be distinguished. Experiments made with a view to determine whether the amount of the precipitate bore a fixed proportion to the admixture led to a negative result.

It is very important to filter the solution immediately after the addition of the reagent, as otherwise the filtrate will assume a very dark color. In order to hasten the filtration, a small quantity of gelatine-solution (1 drop of a 10 % solution for every 2 cc. of coffee-infusion) may be added before the cupric acetate.

The degree of roasting influences the result but little; coffee roasted at 200° C., or even at a higher temperature, yields a filtrate only a trifle darker than if roasted at a lower temperature.—*Arch. d. Pharm.*

Falsification of Oil of Cloves.

MR. ED. SCHAER, in a communication to the *Schweiz. Woch.-Schr. f. Pharm.*, reports that a quantity of oil of cloves which had been imported from abroad was found to present some abnormal appearances which pointed to adulteration. It was much more mobile and liquid than usual, appeared to be freshly distilled, as it was almost colorless, and had a spec. grav. of about 0.965, while the genuine oil is heavier than water, and has a spec. gr. of 1.017 to 1.040. The determination of the boiling point brought to light another peculiarity: about one-half of the oil distilled over at 165° to 170° C.; then the temperature rapidly rose to 235° to 245° C., at which the rest of the oil passed over. The boiling point of pure oil of cloves is about 245° C. The nature of the admixture could not be satisfactorily determined; but it was suspected to be the oil of Eucalyptus Globulus, which has a spec. gr. of 0.870, and boils at 175° to 180° C.

A peculiar Reaction between Glycerine and Chloride of Lime.

G. SCHIEDMEYR sends the following communication to the *Zeitsch. d. Oest. Apoth.-Ver.:* A few weeks ago I received the following prescription:

℞ Calcii hypochloros... 10.00 [gm.]
Glycerine ..... 30.00 [gm.]
M Fiat unguentum.

I placed the chloride of lime into a mortar, and added to it a portion (about 10 grms.) of glycerine. As soon as I began to triturate, the mixture swelled up, became warm, and gave out a gas of yellowish-brown color, and rather pleasant non-irritating odor. In the mortar remained a hard brown crust, which a few days afterwards became again soft by abstracting moisture from the air.

On adding the whole of the glycerine (30 gm.) at once to the chloride of lime, the same reaction takes place, but instead of the hard crust there remains in the mortar a yellowish-brown mass of soft consistence, and possessing the odor of the above-mentioned gas, not at all resembling chlorine.* If the chloride of lime be damp, this reaction does not take place. As the physician naturally desires the effects of the chloride of lime, it will be better to add a little water to it before mixing it with glycerine, in order to prevent mutual decomposition.

On the Difference in the Effects of recent and old Rhamnus Frangula Bark.

DR. LAMM, of Stockholm, directs attention to the fact that the cause of certain complaints which have lately been made about the inferiority of samples of Rhamnus Frangula bark is most likely its use in too recent a state. The bark was once officinal in the Swedish Pharmacopœia of 1790 (4th edition), but was afterwards dropped, until 1869, when it was replaced in the 7th edition. Both at the time of its first introduction and at its second revival the effects observed were generally obtained from old stocks of bark kept in drug-stores, which, under the favorable reports of physicians, were speedily used up, causing an influx of fresh bark, which was found not to come up to the expectations. The last edition of the Norwegian Pharmacopœia, recognising this fact, requires the bark to be kept for at least one year before being used. According to Fristedt, the recent bark is said to produce colic and vomiting, which effects have repeatedly been noticed after its administration, but have never before been referred to the age of the bark.—*Pharm. Zeit.*, 1876, No. 22.

Elimination of Salicylic Acid, and its Detection by Perchloride of Iron.

To the Editor of New Remedies:

DEAR SIR:—A few days ago, during a conversation with Prof. J. L. Smith, my attention was called to the perchloride of iron as a test for the acid in the urine. The doctor is in the habit of using the acid in his practice to some extent, especially in cases of diphtheria, and among many of the properties of the acid he has noticed that it has the effect of decreasing albumen in the urine.

Receiving a specimen of urine from a patient who was under treatment with the acid, I found the urine of an acid reaction and albuminous. On carefully adding to a sample of the urine solution of ferric chloride, it became of a pink or wine color, and thinking that the albumen might possibly have some influence upon the reaction, I took another portion, and having removed the albumen by heat I again added some of the iron, when the same color in the urine was developed. Not being satisfied with the test, I thought I would try the action of the acid on healthy urine, which I examined carefully (at 9 A.M.) before the administration of the acid, and found to be unaltered when mixed with the iron solution. At 11 A.M. five grains of the acid were administered. At 11.30 A.M. I tested some urine, but failed in finding any change in color; at 12.55 P.M., or one hour and fifty-five minutes after taking the acid, on adding the iron the urine was changed to a pink color; at 1.50 P.M., or two hours and fifty minutes after taking the acid, the test was still distinct; at 11 P.M., or twelve hours after taking the acid, it was the same; at 8.15 A.M. the next day the test was still to be seen, but very faint; at 12 M. on this day all traces had disappeared. The dose, although small, produced the following effect: Before the administration of the acid the urine was of a uniform color, but afterwards the urine appeared as if it had lost its coloring matter, which leads me to think that during the elimination of

* The gas probably consisted of carbonic acid, small quantities of chlorine, and a chloro-carbon compound, perhaps vapor of chloroform.

the acid it may have acted on the coloring matter of the urine. I also noticed that the acid has some diuretic properties. J. M.

Glycerole of the Subacetate of Lead.

We have received from Balmano Squire, of London, a well-known authority in cutaneous affections, the following note in relation to the preparation of the glycerole of the subacetate of lead, which he recommends to be used in place of benzoated oxide of zinc ointment and Goulard's cerate, and which he has found to be serviceable in a considerable number of skin diseases :

The Pharmacopœia already contains a certain number of glyceroles. The exceptional solvent powers of glycerine, its property of preserving for a very long time various substances, such for example as tannic acid held in solution by it, which cannot be kept for long unchanged in the form of aqueous solutions, and the adhesive properties of glycerine, have commended this menstruum already as a convenient vehicle in the composition of certain preparations. However, in my belief it has not yet obtained the consideration it fairly merits, and more especially as a vehicle for applying remedies to the skin. Greasy preparations and aqueous preparations are in many cutaneous diseases alike unsuitable as therapeutic agents, but glycerine seems to me to hold a convenient middle place between the two as a vehicle. But to enter into details on that head would be out of place here. I have to add to this, that I have found that lead in the form of the basic acetate is of more avail, speaking generally, than the remedy which is on the whole the most popular one in the treatment of cutaneous disease, namely, oxide of zinc, for achieving those ends for the furtherance of which zinc is most commonly employed. In short, I believe that the glycerole of subacetate of lead, as soon as it shall have come into extensive use, as I believe it will when it has once been generally tested by practitioners, will be an article in very large demand. If general medical opinion should prove to endorse a very long experience on my part of the action of this application in chronic eczema, a disease which is the commonest of all of that very common class of disorders—the diseases of the skin—then without question the demand for this remedy will at least equal the enormous demand which has long existed for zinc ointment. I think it therefore not unnecessary that I should describe the mode of preparing it, since it is a preparation which, although simple enough in composition, requires certain special precautions in its manufacture, and is moreover a material which cannot readily be manufactured at the moment, but requires to be kept in stock. The preparation consists simply in making the plumbi subacetatis liquor with glycerine instead of water. The article thus obtained serves as a stock solution, to be diluted with seven times or three times its quantity, or even with a less proportion of pure glycerine, and to be thus used as an application to the diseased skin.

In the preparation of the substance, the direction of the Pharmacopœia in reference to liquor plumbi, that the liquid shall be boiled, can scarcely be carried out, since glycerine, unlike water, decomposes at the boiling point, evolving acrid fumes, and the result would be scarcely a simple solution of the basic acetate in unmodified glycerine. On the other hand, I find that if the process be conducted in a boiling water bath, the white insoluble residue left is more considerable than if the process be conducted, as I subsequently directed it to be done, in a boiling glycerine bath ; although in either case the residue is less than that left in the preparation in the ordinary way of the plumbi subacetatis liquor. In other words, I find glycerine to be a somewhat more ready solvent than water of the basic acetate of lead. However, the acrid fumes evolved by the boiling glycerine bath, although they do not affect the purity of the preparation itself, since the glycerine actually used in the preparation does not of course reach the boiling point, are nevertheless a cause of considerable personal inconvenience to the pharmacist ; and I am indebted for a useful suggestion to my brother Peter. He has adopted the simple expedient of using an oil bath in place of a glycerine bath, and thus, while attaining the requisite temperature, keeping it a little below the boiling point of glycerine, has avoided the drawback of creating an unbearable atmosphere. A solitary fact remains to be told. The solution when made has a much greater viscidity than that of pure glycerine ; in fact, the solution is very viscid indeed. If filtered in the ordinary way, that is to say at the ordinary temperature, it would take a week or two at the least to filter even a small quantity of it, but if filtered at a tolerably high temperature, the solution, like pure glycerine itself, temporarily loses its viscidity and runs readily through the filter. It is necessary, therefore, that the filtration should be performed in a hot chamber, a gas-oven, or steam-oven of moderate heat, so as not at least to char the filtering paper, since in that case the filtered solution will be found to have acquired a disagreeable dark-brown color ; but the filtration of course should be conducted below the boiling point of glycerine.

In conclusion, I may say that the preparation has the advantage of being what in pharmaceutical phrase is termed an "elegant," that is to say, an acceptable, preparation. It has the sole drawback of being somewhat, but by no means distressingly, "sticky" in feel when spread over the skin, but it is not objected to nearly so much as greasy preparations of any kind by those who have had to use it. It is a clear, almost perfectly colorless, solution, resembling, except as to its greater viscidity, pure glycerine, whereas the speedy relief it affords in the numerous class of cases to which it is suitable readily excuses any trivial discomfort its first appliance may occasion.

To Distinguish the Cyanides.

Although, as a rule, it is so easy to detect accidental poisoning by cyanide of potassium, by a general determination of the presence of cyanogen, yet, on the other hand, it is not always easy to resolve the question whether the cyanogen was introduced in the form of free hydrocyanic acid or cyanide of potassium, or, perhaps, as one of the non-poisonous double cyanides, the ferro-cyanide of potassium, for example. For the solution of these doubts Jacquemin recommends that a part of the stomach-contents should be neutralized with sodium carbonate, the mixture heated in a retort or flask on a water bath to about 50°, and then a slow stream of carbonic gas be led through. Ferro-cyanogen compounds are not affected by the carbonic acid gas, whilst the cyanide of potassium is, with liberation of prussic acid. This is conveyed, along with the excess of carbonic acid, through a system of tubes, including a bulb apparatus filled with distilled water, and a second similar one containing a dilute acidified solution of silver nitrate. Almost the whole of the hydrocyanic acid, which can only have been present originally either in the free state or as potassium cyanide, and not as a double cyanide, is retained in the first apparatus, containing the distilled water, whilst, perhaps, unabsorbed traces are retained by the silver solution and precipitated as cyanide of silver.—*Chem. & Drug.*, fr. *Ann. de Ch. et de Ph.*

Preservation of Decoctions and Infusions under Cotton Wool.

The mode of preserving infusions and decoctions suggested by Almén has been tried by J. F. Ryberg on several easily decomposable officinal infusions, such as *Inf. amarum* and *Inf. Gent. comp.*, and found satisfactory. Infusum amarum, which usually in a few days becomes turbid and mouldy, remained unchanged for six weeks, although in the seventh week mould began to form and soon spread through the liquid. The result was referred by Ryberg to the circumstance that the india-rubber stopper did not remain fast closed and air was permitted to enter. In the second case, where a quantity of more than 7,000 grammes of compound infusion of gentian was taken, the experiment succeeded still better, although several times, weekly, small quantities were withdrawn from the flask for examination. The process of Almén, which perhaps may not have remained in the memory of many readers, is essentially as follows:—The infusion or decoction is heated for some time in a water bath at 100°, and the bottle then fitted with a tight cork, through which passes a glass tube, lightly filled with cotton wool. The cork has a second opening, through which passes a glass tube quite to the bottom of the bottle; this tube is bent at a sharp angle and has fitted upon it a piece of india-rubber tubing, by means of which the bottle may be filled and afterwards the contents drawn upon. Ryberg is of the opinion that for *Infusum Sennæ compositum*, for which this method is particularly recommended, the Pharmacopœia should authorize preservation under cotton wool.—*Chem. & Dr.*, fr. *Pharm. Zeit.*

RECENT PAPERS.

Journ. de Pharm. et de Chim. April.—E. Fremy. "On a sulphate which appears to contain a new Oxide of Manganese." [On treating manganic oxide with sulphuric acid, a wine-red solution is obtained, which appears to contain a manganoso-manganic sulphate.]—J. Duval. "On Equinic Acid." [The author announces the discovery of a new organic acid in mares' milk. Mares' milk is evaporated, exhausted with ether, the ether distilled off, the residue treated with water or weak alcohol, and the whole thrown on a wet filter. The new acid passes through the filter together with the water, and the fat remains behind. On evaporating the filtrate, the acid is obtained in a syrupy condition, forming gradually needle-groups of crystals. One litre of fresh milk yields about 0.52 gm. of the substance.]—Lepage. "Assay of Potassium Iodide, and Detection of the various foreign Salts it may contain." [The methods employed are the usual ones for detecting carbonates, sulphates, iodates, bromides (by separation with chlorine), and chlorides. An additional test, however, is given in case chlorides and bromides are suspected together. About 1 gm. of the residue of the suspected salt, left after treatment with alcohol, is mixed with double the weight of potassium bichromate in powder, introduced into a small flask, together with about 4 gm. of sulphuric acid, and the flask connected with a short, bent tube dipping into water containing 3 gm. of ammonia. On applying heat to the flask, chloro-chromic acid will be formed, if chlorides are present, which will give a yellow color to the ammoniacal solution, while, if bromine was present, the liquid will remain colorless.]—Frebault. "New Reagent for Acids and Alkalies (see July number).—Gossart. "Preparation of Syrup and Tablets of Tolu." [By heating syrup with balsam of Tolu in a still, and frequently returning the water which has distilled over; then cooling.]

Lieb. Annal. d. Chem., Vol. 180, No. 3.—C. Brimmer. "On some constituents of Angelica Root." [See this journal, page 102.]—E. Schmidt. "On the action of Hydrogen Sulphide upon Alkaloids." [Hofmann having observed a peculiar combination of strychnia with hydrogen persulphide, the author proposed to examine the compound more minutely. It is obtained by saturating an alcoholic solution of strychnia with hydrogen sulphide, and allowing to stand at rest for some time; after a while, orange-red needles of great beauty separate, the quantity of which may be increased by repeated saturation of the liquid with H_2S. The following reaction takes place according to the author's views: $2\,Strych. + 6H_2S + 3O = 2\,Strych.(H_2S_3) + 3H_2O$. In the case of brucia, two such compounds were obtained, one containing one molecule of hydrogen disulphide (H_2S_2), the other, two molecules.]—A. Butlerow. "On the milky juice of Cynanchum acutum, L." [Existence therein of a white crystalline substance, which the author provisionally calls Cynanchol, and considers to be a derivative of an aromatic alcohol.]

Vol. 181, 1.—O. Hesse. "On Phenol Compounds." [The author, who has previously described some peculiar compounds of phenol with salts of quinia (compare above, page 47), now communicates the results of further investigations upon other cinchona alkaloids. Phenol-water, added to a hot solution of neutral sulphate of cinchonidia, causes the separation, on cooling, of crystalline phenolsulphate of cinchonidia $2\,C_{20}H_{24}N_2O, SO_3, C_6H_6O + 5H_2O$, soluble in 425 parts of water at 15°C, easily in boiling water. Addition of phenol-water to its cold saturated aqueous solution, separates almost the whole of it. A similar compound was obtained with hydrochlorate of cinchonidia, but not with quinamia.]—O. Hesse. "On Aricine." [Cinchona-bark, which has been said to contain this alkaloid, namely, the so-called Cusco, and pale Tenchina bark, were found to

contain cinchonidia; and the so-called aricine of commerce, prepared by a firm in northern Germany, was found to be impure *cinchonidia;* its composition is identical with the latter alkaloid, and in all its reactions, especially with phenol-water, and Rochelle salts, it exactly coincides with it.]

Pharm. Zeit. f. Russl. 1876, 1.—J. MARTENS. "Extractum Oxycoccos." The cranberry, from *Vaccinium Oxycoccos* L., contains citric, malic, and tannic acids, and is used in very large quantities in Russian hospital-practice as a basis for acidulated drinks. One pound of the berries yields about 8 oz. of juice, of which 2 oz. are required to make one pound of "Potus succi Oxycocci." The author recommends to concentrate the juice in porcelain or stone vessels, on the glycerine-bath, to the consistence of extract, in which form it may be kept unchanged.]

Zeitch. f. analyt. Chem. 1876, No. 2.—R. KEVSER. "Fluxing of Chrome-iron ore." [The author recommends as best method, to mix the finely-powdered ore with 2 parts calcined pure soda, and three parts calcium hydrate, prepared by adding just sufficient water to burnt marble to cause it to fall to powder. The mixture is heated for about an hour, at a bright red heat. After cooling, the resulting chromate may readily be extracted by boiling water.

Repert. de Pharm.—No. 7.—MASSIE. "On the preservation of certain substances by means of bar iron, or metallic mercury." (See p. 168).—DR. MARMÉ. "On the use of drop-measures in hydrotimetry." [Hydrotimetry is the name of the process for determining the hardness of water, as proposed originally by Boutron and Boudet. The author proposes to abolish the complicated special measures, and to substitute the usual fluid-measures instead. He also points out that in Boutron and Boudet's formula there is an error of 0.4 gm. per litre, upon the 22 degrees of their burette.]—PORTES, CHASTAING and HUDELETTE. "On Methylaniline Violet as a Reagent for Bile in Urine." [These gentlemen had been appointed a committee by the Société d'Emulation, to report on the reliability of Paris violet as a reagent for bile in urine (see this Journal, above, pp. 13 and 42); they report as a conclusion of their investigations, that this reagent is not entirely reliable, *as it sometimes fails to detect biliary coloring matters, when present, and occasionally gives the reaction when they are absent.*

No. 8. LEGRIP. "Extraction of Vegetable Juices by Ether," (See p. 168).—LIMOUSIN. "Preparation of Proto-bromide of Iron (Ferrous Bromide) for Syrup and Pills," (see p. 188). P. YVON. "Detection of Fuchsine in Wine." [25 to 30 c.c. or about a fluid-ounce of the suspected wine are agitated with 1 or 2 gms. (15 to 30 grs.) of animal charcoal, which need not be added in sufficient quantity to entirely decolorize the wine. The whole is thrown upon a small funnel, the orifice of which is closed with a small pellet of asbestos; and when the liquid has run through, the animal charcoal is washed with a little water. If now a small quantity of alcohol be passed through (which does not remove from the charcoal the natural coloring-matters of the wine), it will be found to have a more or less dark red color, according to the quantity of fuchsine present. The color is a bright cherry red, if only 3-10 of a grain of fuchsine were present in one quart of wine; at 3-100 the color is still very marked.]—E. PRESTAT. "Employment of *Mylabris interrupta* as a substitute of *Cantharis.*" [*Mylabris interrupta*, Lucas, occurs principally in Algiers, and lives preferably upon the leaves and flowers of *Spartium junceum* and *Stachys hirta.* A plaster prepared in imitation of the officinal French cantharidal plaster, namely, of 30 parts suet, 30 of yellow wax, 10 of resin, and 70 each of lard and powdered mylabris, produced prompt and extensive vesication. A comparative estimation of *cantharidin* in Cantharis and Mylabris yielded 0.186 per cent. for the former, and 0.316 per cent. for the latter.]

Zeitsch. d. Oest. Ap. Ver.—No. 7. V. L. OLIVIER. "The Chili Saltpetre Industry in South America," (from *Compt. Rend.*)—O. WACHSMUTH. "Oleum Jecoris asselli ferratum," (see pg. 166).—DR. H. ALMES. "On some Properties of Ferric Chloride," (see p. 166).—No. 8. C. GEYER. "On a Forest-tree of North-Western North America." The giant pine or *Pinus Lambertiana*, Dougl. Its wood is almost pure white, and very valuable for carvings. The resin, after having been for some time exposed to the air, has a pure, sweet taste, and is used by the native Indian tribes as a substitute for sugar, whence the tree is named "sugar-pine" in upper California. The sweet, almond-like seeds, roasted and made into bread, form likewise an important article of diet of the Indians. The kernel of these seeds contains 53.40 per cent. of oil and fat, 25.49 per cent. of protein-compounds, and leaves 3.76 per cent. of ash.]—J. B. BATKA. "On Tacamahac and Anime Resins."—No. 9. C. FÜRSTENAU. "On manufacture of Ultramarine." [Amount manufactured in Germany, about 10,000 tons annually. Only two varieties of aluminium silicates are applicable for this manufacture, viz: $2Al_2O_3$, $3SiO_3$ and Al_2O_3, $2SiO_3$;—Si being 44.5. —These yield by treatment with sodium di- or pentasulphide the various shades: pure dark blue, light blue, reddish blue and dark violet-blue.]—G. SCHIEDMEYR. "A peculiar reaction, etc." (see p. 170)—No. 10. H. v. BAMBERGER. "Soluble Mercury-Albuminate" (see p. 167). —X. LANDERER. "On Popular Remedies."

Am. Journ. of Pharm. May.—X. LANDERER. "On some Medicinal Plants of Greece." [The author gives some interesting accounts of various plants, their history and uses. But some of his statements are erroneous, especially where he treads on philological ground. He says the name *scilla* is derived from a Greek word σκιλλεῖν "because the bulb can be readily divided into small pieces or scales." He evidently meant σκύλλειν "to flay," but it is highly improbable that the word is of Greek origin.—*Sonchus*, the ancient name of Sonchus oleraceus, he derives from ζωὴν χέειν (sic!) "to infuse life," corresponding to Pliny's "succum salubrem fundit;" this is one of the old misderivations, in which the ancients excelled. The word is certainly not of Greek origin, and is probably Egyptian.—*Nerium.* The Greek name νήριον he derives from νηρὸς "damp;" according to Phrynichos (42 ed. Lob.) this is a contracted form for νεαρός "fresh," and it is not the source of the word. It is very probably related to νάρδος, nardus, also used to denote the same plant besides others, and this is the Sanskrit nalada, occurring already in one of the Vedas, and used in India later to denote Nardostachys Jatamansi D. C. But whether "nalada" and its congener néred (Heb.)—nardus, is a Semitic or Aryan word is doubtful.—*Hayκράτιον* is *Asphodelus ramosus.*—Eruca occurs only in Latin authors, and is connected with *ἐρεύγω*, eructo, "to vomit;" German: Rauke; French: la roquette. Finally the statement that Greece consumes annually about 20,000 kilos of sulphate of quinia, and all oriental countries about 500,000 kilos, is utterly impossible. Landerer himself, in an article published in Buchner's N. Rep. 1876, p. 184, says, that Greece and the Ionian islands consume annually between 20,000 and 25,000 *grammes*, and Asia Minor, Thessaly, Epirus, Macedonia and Constantinople about 500,000 *Kilos*;" this should most likely have read *grammes* also.]—J. U. LLOYD. "Pressed Herbs." [The author recommends to pack herbs into air-tight tin cans, with the addition of about ½ oz. chloroform to each pound of herb immediately before closing and sealing up the can.]—H. T. HAYHURST. "Effervescing Preparation of Sodium Tartrate." [The following formula is recommended: Rub 3 drops of oil of lemon with 1¼ Troy oz. of powdered sodium carbonate, and add enough water to dissolve; to this solution add 5 ʒ of crystallized tartaric acid, and stir until dissolved. Filter, add 1½ fl. oz. of syrup to the filtrate, agitate thoroughly, add 1 ʒ of crystals of tartaric acid, cork and tie.]—J. P. REMINGTON. "A singular reaction." [Noticing the presence of traces of iron in samples of spirit of nitrous ether, and syrup of squills, probably owing to the fact that worn tinned-iron measures had come into contact with the former and with the acetic acid in the latter.]

Pharm. Journ. & Trans. April.—W. F. KOPPESCHAAR.—"Volumetric Estimation of Phenol or Carbolic Acid." [The author proposes to modify the method of testing for phenol with bromine-water, by using bromine in the nascent state, to eliminate errors caused by the volatilization of bromine during the employment of its solution. Bromine-water alone may be used, when not very accurate results are required; but otherwise the author recommends the other process. The latter consists mainly in causing the liberation of bromine by adding HCl to a mixture of sodium bromide (5 mol.) and sodium bromate (1 mol.) and then adding solution of potassium iodide. The bromine liberated from the sodium compound combines with phenol to form tribromphenol, and any excess of bromine, which must be present, separates an equivalent amount of iodine from the potassium iodide. The quantity of the free I is then determined by a standard solution of sodium hyposulphite.] —A. J. COWNLEY: "On the Conversion of Brucine into Strychnine by the Action of dilute Nitric Acid." [It having been stated by Prof. Sonnenschein that brucine is easily converted into strychnine by means of dilute nitric acid, the author instituted various experiments to verify this statement. He used nitric acid of various degrees of dilution but could find in no case any formation of strychnia. But he obtained a substance which he regards as a nitro-base of brucia, probably identical with Laurent's cacotheline.]

May.—B. SQUIRE. "Glycerole of Subacetate of Lead." [The quantities ordered by the pharmacopœia for Liquor Plumbi Subacetatis, with the substitution of glycerine for water, are heated in an oil-bath to a temperature below the boiling point of glycerine, and the solution filtered while hot.] —EDITORIAL on Persian Opium (see p. 165)—R. FARQUHARSON: "Official Dosage, with Remarks on Homœopathic Tinctures." [The author, near the end of the article, deprecates the fact that, while there is no provision of law to prevent the promiscuous sale of homœopathic remedies, owing to their supposed dilution and attenuation, there is springing up a growing usage of the strong homœopathic mother tinctures, both by homœopathic practitioners and by the public. He draws attention to the fact, that some of these tinctures are much stronger than those of the Ph. Br. The same was found to be the case with other preparations. While a liquid labeled "Arsenicum Alb. Poison. Dose for an adult, one to five drops" was found on analysis to contain 1 grain of arsenious acid in 102 minims [British = 106 min. U. S.], the Ph. Br. solution contains 1 grain of arsenious acid in 120 [124.8] minims. Another preparation was labeled "Mercurius Cor. Poison. Dose for an adult one to five drops." It was found to be an alcoholic solution of amido-chloride of mercury, and contained about 1 gr. in 2 fl. drachms.]

Journ. Chem. Soc. March.—R. W. EMERSON MACIVOR. "On the Iodides of Antimony." [SbI_3 may be prepared by gradually adding excess of finely divided antimony to iodine contained in a convenient vessel, to which a very gentle heat is first applied to start the reaction. The first few additions of the metal produce enough heat to melt the iodine, and the further additions must be *very carefully* effected, to avoid violent action, and loss by volatilization. When saturation is completed, the melted product is poured off from excess of metal, and either cast into forms, or sublimed. It may be dissolved in boiling benzene, or carbon disulphide, from which it crystallizes in bright red tubular crystals. On dissolving it in aqueous hydriodic acid and pouring the solution into water, a yellow precipitate of oxyiodide (SbOI) is produced.]

Pharm. Centralh. No. 14.—A WAGNER. "Action of various solutions upon metals." [Lead, tin, zinc and britannia metal are affected by many saline and alkaline solutions, as soda and lime-water, the chlorides of alkalies and their carbonates. Distilled water, under access of air free from CO_2, remains unaffected by tin, britannia-metal, and German silver; but takes up notable quantities of lead, copper, zinc and brass.]—No. 15. HAGER. "Rozsnyay's tasteless Quinia preparations." [Dragees prepared from sugar and quinia tannate; the latter perfectly neutral and carefully prepared.]—HAGER. "On the preparation of chalybeate mineral waters." [Endorsing the employment of citric acid to keep any ferric oxide in solution; according to Hager about 0.02 gm. ($\frac{3}{10}$ gr.) of citric acid is required for 750 c.c. ($25\frac{1}{4}$ fl. oz.) of chalybeate water.]

Arch. d. Pharm. April. — G. C. WITTSTEIN. "Some practical Uses of the Sunflower" (see p. 165) —O. LEVESIE. Contributions to the Chemistry of Coffee." Analysis of various grades of coffee yielded the following percentages:

	Caffein	Fat	Pectin	Acids	Ash
Finest Plantation Jamaica..	1.43	14.76	25.3	22.7	3.8
Finest Green Mocha	0.64	21.79	22.6	23.1	4.1
Pearl Plant. Ceylon.....	1.53	14.87	23.8	20.9	4.0
Washed Rio.....	1.14	15.95	27.4	20.9	4.5
Costa Rica.....	1.18	21.12	20.6	21.1	4.9
Malabar.....	0.88	18.80	25.8	20.7	4.3
East India Coffee..... ...	1.01	17.00	24.4	19.5	?

The column "Acids" refers to caffeic and caffeotannic acids.—A. FRANZ. "Examination of roasted Coffee for Chicory" (see p. 169).—G. KRAUSE. Analysis of an old Bronze." [The composition of an old bronze-weapon, supposed to be about 2,000 years old, was ascertained to be 90 parts copper and 10 parts tin, proving thereby that tin was certainly known to the ancients, a fact which has been much doubted.]—R. NIETZKE: "On a new Glucoside in the Flowers of *Cichorium Intybus*." [The flowers contain abont 4% of a glucoside, which crystallizes with exceeding facility in white needles. It is split up by dilute acids into grape sugar and another crystalline substance soluble in alkalies (free from ammonia and carbonic acid), with intensely yellow color, and *with extraordinary fluorescence*.]

Ber. d. deutsch. chem. Ges. No. 6. F. A. FLÜCKIGER. "On Carvol." [Carvol, $C_{10}H_{14}O$, is one of the constituents of oil of caraway, and exists in other essential oils. The author has found it in oil of dill, oil of balm mint (Mentha crispa L.), and supposes its presence in oil of spearmint; but he failed to find it in some others, in which a substance having the composition $C_{10}H_{14}O$ had been asserted to exist, namely, oil of myrrh, of eucalyptus, and of nutmeg and mace. Carvol may be readily obtained by adding to the oil one-fourth of its volume of alcohol (spec. gr. 0.830), saturating with ammonium sulphide, and adding a very small quantity of absolute alcohol saturated with ammonia; the whole mass becomes semi-crystalline, through formation of carvol sulphide $(C_{10}H_{14}O)_2\,SH_2$.]

No. 7.—L. MEYER. "Generation of Hydrogen by means of Zinc and Cupric Sulphate." [If zinc and cupric sulphate be brought into contact in presence of water, hydrogen is given off, and copper and a basic sulphate of zinc is precipitated. The reaction continues for a long time. 10 gm. each of zinc and cupric sulphate yielded several litres of H in a few days. A mixture of 100 gm. each of the metallic ingredients in 200 gm. water continued to act for 8 months]—H. SCHIFF reports that W. Koerner has identified Veratric Acid as Dimethylprotocatechuic Acid.—According to D. Vitali, potassium iodide may be freed from small quantities of iodate by adding a little hydriodic acid and evaporating to the point of crystallization. Iodine is separated and volatilizes with the water. In presence of larger quantities of iodate the same method may be adopted, but it is preferable to remove the separated iodine by shaking the solution with carbon disulphide.

Uric Acid, free from coloring matter, may be obtained from guano, by treating the latter with a hot soda solution, filtering, and adding just enough HCl to start the formation of a precipitate. The first portions of this carry down nearly all the coloring matter. The liquid is now filtered, and if still colored, the process is repeated until the filtrate appears bright yellow. The uric acid may then be precipitated by excess of HCl.

THERAPEUTICS.

The Hypodermic Injection of Albuminate of Mercury.

At a recent meeting of the Wiener med. Doctoren Collegium, Professor Bamberger (*Allge. Wien. med. Zeit.*, March 14, 1876) after portraying the advantages accruing from the hypodermic use of drugs, detailed a series of experiments which he had undertaken for the purpose of obtaining a mercurial preparation which could be introduced in this manner. The sublimate always causes suppuration or long continued infiltration at the point of injection, as will also a mixture of calomel in water or glycerine. For several years he had been endeavoring to solve this difficulty, and for this purpose had made numerous combinations of mercury; but the preparations were either insoluble or too readily decomposed, or they could not be sufficiently purified. Only recently had he succeeded in getting a preparation in which these difficulties were all surmounted—the albuminate of mercury [for the details of the preparation of which, see p. 167].

The therapeutic results obtained by this means were remarkable. The experiments were limited to the treatment of specific affections, particularly to patients suffering from syphilitic exanthemata, and almost all symptoms disappeared after ten to twenty injections. Salivation never occurred, although no precautions (such as mouth washes, etc.) were taken to prevent it. All the patients bore the treatment well, and increased in weight. After only two injections (18 millig. mercury) Prof. Ludwig was able to detect mercury in the urine. This preparation may also be employed internally, as it does not irritate the mucous membranes, nor produce any disturbances of digestion. If we have any fears on theoretical grounds of the possible formation of the corrosive sublimate by combination with the hydrochloric acid of the stomach we may, previous to each dose, order some alkaline water to be taken.—*The Clinic.*

How to Cure a Cold in the Head.

Dr. Ferrier, being dissatisfied with the usual formula for treating a cold in the head, namely, "sudorifics and lying in bed," has made a trial of various substances, to be used in the form of snuffs at the beginning of an attack of nasal catarrh. He finds the following prescription very efficacious:

℞ Muriate of morphia, ... gr. ij;
Acacia powder, ... ʒ ij;
Subnitrate of bismuth, ... ʒ vj.

Of the powder one-quarter to one-half may be taken as snuff in the twenty-four hours.

Chloral in Pityriasis.

Dr. Martineau asserts that a solution of forty grains of chloral to an ounce of water, applied to the scalp each morning by means of a sponge, using slight friction, and allowing it to dry, is very efficacious in pityriasis. If the disease is recent, and the lotion is uninterruptedly used for a month, he predicts a certain cure. In the chronic and more obstinate cases, he recommends the continuance of the application of the solution until the disease disappears, as its daily use produces no inconvenience, whilst it relieves the itching.—*Med. and Surg. Reporter.*

The Pseudo-Narcissus as an Emetic.

M. René Blanche follows the practice of his father and of Guersant, of using an infusion of the pseudo-narcissus as an emetic. He finds in the use of this remedy a certainty of action which has never failed in more than fifty cases in which it has been employed. He directs it to be prepared by infusing two to three grammes of the flowers in 150 grammes of boiling water. This infusion, slightly sweetened, is readily taken by infants, and vomiting follows in five, ten or twelve minutes after its ingestion. M. Blanche purposes to determine, by future study, the part of the plant in which the vomitive action resides.—*Bull. Gén. de Thèrap.*

The flowers of the wild or pseudo-narcissus have, by some physicians, been considered to be superior to ipecacuanha as an emetic, while others utterly refuse to concede to it such properties.

They are also said to be possessed of antiperiodic properties, and have been used as an antidysenteric in doses of one to two drachms of the powder in water. M. Deslenchamps has used it as a febrifuge.

Action of the Biliary Salts upon the Pulse, Arterial Tension, Respiration, and Temperature.

Messrs. V. Feltz and E. Ritter have established, by the injection of natural bile into the blood in non-poisonous doses, that the pulse diminishes in frequency, that the respiration slackens, and the arterial tension and temperature fall. These functional disturbances were not produced under the influence of injections more or less large, or more or less frequent, of the different biliary coloring maters, or of ethereal solutions of cholesterine. The biliary salts, glyco, and tauro-cholates of soda, mixed in the proportions in which they exist in the bile, introduced into the venous circulation in moderate doses, reproduced in the dog the functional disturbances characterizing the similar use of natural bile.

These authors also say, that the effect of the biliary salts upon muscles is to cause them to lose their contractility; and such a change occurs in blood corpuscles as to render their passage through the capillaries much slower.

In the discussion of this paper, M. Bouillaud remarked that it explained satisfactorily the slow-

ness of the pulse in icteric cases; and, contrary to the opinion of Stroll and others, that the presence of bile in the blood is a cause of febrile excitation in jaundice, the opposite condition follows. In persons whose pulse is normally 60 to 72, it would descend under this influence sometimes to 40.—*Bull, Gén. de Thérap.*

The Gurjun Oil Treatment of Leprosy.

In the *Indian Medical Gazette* of March, Dr. Lachmann Doss, Sen., who has charge of a leper asylum, gives his experience in the use of gurjun oil in twenty-five cases of leprosy during eight months. An emulsion of equal parts of the oil and lime-water were given in half-ounce doses twice a day. One part of the oil and three parts of lime-water were churned together, until a mass like butter was formed, which was applied by thorough inunction for two hours daily. Under its use the ulcers healed; the thickness of the skin was to a certain extent reduced, swellings of the skin and tubercular elevations nearly all subsided; sensation, particularly in the upper extremities, partly returned; the itching sensations of the skin, and general irritability of the body almost entirely abated; patches of discoloration faded from the circumference towards the centre, assuming a level with the surrounding skin, but still looked lighter in color, and were insensible to touch. Although it is not proved to be a specific, gurjun oil appears to be a valuable remedy in leprosy, especially when its use is resorted to early in the affection.

The Nitrite of Amyl.

The May number of the *Proceedings of the Medical Soc. of the Co. of Kings* contains a very elaborate paper by the President of the society, Dr. Alexander Hutchins, on the nitrite of amyl. The history and therapeutical uses of the substance are given in the form of a résumé of its literature, which is followed by a bibliographical list. In the discussion which followed, Dr. Squibb remarked that the practice of administering the nitrite of amyl is drifting into the inhalation of small quantities from a small vial, the mouth of which is applied to one nostril; one to three full inspirations being sufficient. This small vial may be carried by asthmatics and others in the vest pocket, and should be tightly corked; corks are rapidly rendered friable by the nitrite. This method is convenient and economical.

Dr. Squibb has information that the nitrite is being largely employed in the asylums of this country for the treatment of the epileptic insane. Dr. Kempser says that his epileptic wards have been revolutionized; they are less noisy, the seizures becoming comparatively rare, by reason of the power of the drug to anticipate and prevent them, where the aura is distinct, or to arrest them where there is no appreciable aura. The nurses are instructed in its use. As an explanation of the alleged curative effect of the remedy, Dr. Squibb suggested that it may cure by breaking up the epileptic habit, as appears in the case of other affections showing a periodic tendency.

Hyponitrous ether, the potent ingredient in the spts. ether. nitrosi, appears to have the almost absolutely opposite physiological effect to amyl nitrite; it contracts, while the latter expands the capillaries; it causes a blanched and shriveled look. This suggests its use in the event of over-intoxication by amyl. The commercial spts. ether. nitrosi contains more alcohol than is required by the formula, and less of the ether; it therefore is frequently disappointing in the treatment of ephemera and the like, and it is falling into disuse.

There appears to be very little danger from the use of amyl under any ordinary circumstances. In the case of anæmic persons, by whom a larger quantity is required, it should be administered with caution. Beyond this particular, it is comparatively harmless. He had himself been exposed to vapor to an unusual extent, in consequence of the breakage of a pint bottle, and the necessity to remain and exert himself in an atmosphere heavily charged with the vapor, in order to prevent its explosion by coming in contact with a flame which was near at hand. The feeling of swelling of the head and body, and a sensation as if about to fall, were extreme for a time, but passed off without ill effects. The sensorium was clear during the whole time of the occurrence. Since the reading of the paper, Dr. Lamadrid reported to the editor three cases which had been very much helped by the amyl nitrite; viz., of asthma, angina pectoris, and dyspnœa in diphtheria.

Quinia Subcutaneously in Sun-Stroke.

Mr. A. R. Hall, of the British Army Medical Department, says that the experience of several medical officers in India is now apparently sufficent to prove that the hypodermic injection of quinia in heat-apoplexy is the most successful mode of treatment that has yet been adopted. In May, 1869, Mr. Walter Kerr, of Calcutta, told him that he had been very successful in treating sunstroke by doses of twenty to thirty grains of quinia given by the stomach, and advised him to try it. A short time afterwards Mr. Hall did so in the case of a driver who was attacked about half-past five in the afternoon; and who, when seen, was completely comatose, with dilated pupils, stertorous breathing, face very much flushed, skin red and burning hot, pulse full and rapid. Twenty grains of quinia were dissolved in twenty minims of dilute sulphuric acid and about three ounces of water, and the attempt was made to get the patient to swallow it, but failed. A solution of five grains of quinia, in five minims of dilute sulphuric acid and fifty minims of water, was then injected under the skin in different places about the shoulders. Within one hour the heat of the surface had perceptibly increased; he steadily improved during the night, was quite sensible next morning, and recovered without any

bad symptoms. Surgeon J. Anderson shortly afterwards, in the same hospital, treated a case with equally satisfactory results. Mr. Hall attended five cases of heat-apoplexy and employed this method, and all recovered.

The Use of Alcohol in Medicine.

PROFESSOR BINZ, of Bonn, in an article in the May number of the *Practitioner*, summarizes his views regarding the therapeutic use of alcohol as follows: 1. Alcohol is very frequently a stimulant of transitory power; 2. In relatively large doses it can serve as a vigorous antipyretic; 3. Alcohol, given in small and oft-repeated doses, is a food particularly adapted to cases where the stomach can take no other "combustible material" to supply warmth and working energy to the organism.

"While I thus share in the views which the late Dr. Anstie ably upheld in England, I do not hesitate, on the other hand, to declare, with respect to the requirements of the healthy organism, that I consider the use of alcohol in health as entirely superfluous.

"Where the digestion is healthy, and where a sufficient transfer of nutritive material takes place from the food to the blood, the human body is capable of accomplishing all the functions for which it is designed, and that without the use of spirituous drinks.

"But the case assumes a different aspect as soon as these two conditions fail. A physician may therefore recommend total abstinence to healthy persons in every instance, but he throws away one of the most valuable medicines if he carries this principle of teetotalism into the sick room."

Daturia as a Mydriatic.*

JOBERT (de Lamballe) proposed, as early as 1861, to substitute daturia for atropia as a mydriatic; and an analysis of his work was published in the *Bull. Gén. de Thérap.*, Vol. lxii. His conclusions in reference to its properties were: 1. Daturia is three times as active as atropia and its salts, therefore its dose should be only a third as great as that of the preparations of atropia. 2. When introduced between the lids, it does not cause the pain and confusion of vision which attend the similar use of belladonna. 3. The effects of daturia are more constant than those of belladonna, and its action persists for a longer time than that of the latter.—*Bulletin Gén. de Thérap.*

Schroff, in 1852, showed that these two alkaloids, which had in 1850 been declared by Von Planta to be similar, differed greatly in their relative strength, and it appears from the observations of Erhard, in 1866, that they differ in some of their crystalline forms.†

* See New Remedies, Vol. v., p. 50.

† Pharmacographia, p. 414.

Phosphide of Zinc.

P. VIGIER (*Bull. Gén. de Thérap.* Jan. 15,) discusses the therapeutic uses of phosphide of zinc. His experiments, performed with the aid of Dr. Curie, showed the presence of phosphuretted hydrogen in the intestines of rabbits poisoned with phosphorated oil. This fact, with the other one previously determined, that phosphide of zinc is transformed in the stomach into phosphuretted hydrogen, indicates that the action of the two substances on the economy may be identical. It is well to note, also, that phosphide of zinc is more prompt in its action than phosphorus, as shown by experiments on animals. Phosphide of zinc contains one-fourth its weight of phosphorus, and its therapeutic and toxic action is one-eighth of that of phosphorus. That is, eight milligrammes (=0.123 grain) has the same effect as a medicine or a poison, as one milligramme (= $\frac{1}{64}$ gr.) of phosphorus. These figures should be kept in mind by the physician, as they are important.

The reason why only half of the contained phosphorus of this drug is active in the human economy is given as follows: In the decomposition of phosphide of zinc by the hydrochloric acid of the human stomach, a part, probably as much as one-half, passes into the state of hypophosphite of zinc, a salt absolutely inactive in that quantity, while the remainder decomposes into chloride of zinc and phosphuretted hydrogen.

M. Vigier has seen excellent results from the use of phosphide of zinc in cases of chloro-anæmia, and metrorrhagia, and especially in hysterical affections. Others have given similar testimony. The dose which he considers sufficiently large for all cases, is from two to four pills of four milligrammes (= $\frac{1}{16}$ gr.) of phosphide of zinc in a day. He has never seen large doses succeed when small ones have failed.

Squills.

THE *Journal of Nervous and Mental Diseases* quotes the conclusions of an article which ran through several numbers of the *Deutsche Med. Wochenschrift* (Nos. 91–3) by Dr. H. Husemann, of Goettingen, on the physiological and therapeutic action of squills.

1. The extract of squills (*Ph. Germanica**) is a very constant preparation in its action on the animal organism.

2. It effects the innervation of the heart and the cardiac muscle in a very similar manner as digitalin, digitalein, helleborein, antiarin, thevetin, and all those glycosides which are known as cardiac poisons.

3. The diuretic action of this extract can be explained only by the increase of blood-pressure

* [Take of squills, coarsely powdered, *one part*; diluted alcohol, *four parts*. Macerate for four days, then strain and express. Decant the clear liquid, filter and convert it into a *thick* extract.

It is a yellowish-brown, forming a nearly clear solution with water.]

connected with its effect as a cardiac poison; it acts in no other way, and produces neither a local irritant action on the urinary passages nor does it have an eliminant effect from irritation of the kidneys.

4. The indications and contra-indications of extract of squills as a remedy in dropsy, are apparently not different from those of digitalis.

5. It does not have an expectorant effect by any eliminant action on the bronchial mucous membrane.

6. It is not an antipyretic; it rather, in large or small doses, causes a constant increase of temperature.

7. The commercial scillitin, on account of the uncertainty of its action, which prevents an accurate judgment of the dose, cannot be recommended as a substitute for the extract.

Extract of Walnut Leaves in Miliary Tubercle.

Dr. A. Luton, of Reims, advocates in the *Bulletin Gén. de Thérap.* Mar. 15, p. 193, the use of the extract of walnut leaves in the treatment of the condition known as granular tubercle; and, like many French writers, becomes very enthusiastic in its praise, although his observations are not based upon any considerable number of cases. He administers the extract in doses of one, three, and five grammes in a mucilaginous mixture, to be taken in tablespoonfuls every hour. Dr. Luton has also employed a tincture made from fresh leaves, in the proportions of 1 to 1, the dose of which is from five to twenty-five grammes, but has had most experience with the extract. The effects of the remedy are said to be appreciable on the first day in the lowering of the fever, clearing of the tongue, improvement of appetite and increased activity of the functions in general. The dyspnœa, when the disease is located in the lungs, is less troublesome, the pneumonic engorgements disappear, the râles become moist and expectoration easier, &c. In cerebral tuberculosis, Dr Luton has less hope of favorable results, owing, mainly, to the lateness with which therapeutical measures are commonly resorted to. When there is a disposition to vomit, the medicine can be given by enema.

Action of Strychnia on the Eye.

Dr. Hippel (*Ibid.*) says that he has found by personal experience that, when given in doses of two to four milligrammes, strychnia produces the following effects, viz—1. Increased peripheric sensibility for blue. 2. Temporary increase of visual power. 3. More distinct perception of peripheric points. 4. Lasting enlargement of the field of vision. He believes that the effect on the optic nerve is the same as that attributed to continuous electric currents on other nerves.

Santonine as a Febrifuge.

Dr. Francini has for some time treated intermittent fever by santonine, and regards it as a valuable substitute for quinia, preferring it to the latter in some cases. In the *Gaz. Med. Ital. Prov. Venet.* he gives a full account of his experience. He combines it with magnesia and rhubarb, or its extract, so as to give it in powder or pills, and administers it in from three to five grains in 24 hours divided into four doses. [Salicine, and not santonine is probably meant.]

Muriate of Ammonia for the Hydrocele of Infants.

Saint Germain believes that it is not advisable to subject an infant with hydrocele to even the simplest operation, until a trial has been made of a saturated solution of muriate of ammonia. Compresses dipped in such a solution should be applied. Sometimes an erythema, even slight vessication may be caused, but the part may be covered with powder, and the cure is not retarded. —*The American Practitioner*, from the *Jour. de Méd. et de Chir. Prat.*

THE INTERNATIONAL EXHIBITION.

A second visit to the Exhibition at Philadelphia, found quite a change in the appearance of both the grounds and the buildings since the day preceding the opening. Excepting the Turkish and Russian departments of the main building, nearly everything was in perfect order; and the crowds of mechanics, exhibitors, and their assistants, and the piles of packing cases, hay, and wrapping papers, had given place to the thousands of people who swarmed in and out of the doors, and about the aisles and passageways like bees about a hive. The temperature, too, had changed; the mild days of May giving way to the fervid sun of June, and eager sight-seers of the morning came wearily out of the grounds at the hour for closing, with dusty clothes, moist handkerchiefs, and aching feet, but decided in their belief that a bigger show for fifty cents had yet to be heard of. Sight-seeing does not, however, necessitate so much physical weariness, for easy chairs on wheels are abundant, and those who can afford to avail themselves of their assistance can get through the day very comfortably. The proportion of visitors who are not especially interested in anything, but are there to see the show, is necessarily great; and a more miscellaneous lot, so far as relates to their degrees of intelligence, could not be imagined. One of the enjoyments of the Exhibition is, when tired with walking, to find a seat in the main aisle, and while resting, listen to the remarks and comments of the passers-by. We overheard one red-nosed man inform his friend, that the marble foundations toward which he pointed, were for the fountain which is to be presented to the park by the "Total Absentees [Abstinence?] Society;" and a woman who explained to her male companion, that lapis lazuli "is some kind of stuff which is painted and then put out in the sun to dry." Another seeker after information said he was looking for Asia Minor. He wanted to find China and Egypt, "and them countries is in Asia Minor, yer know, along with the Holy Land." The official attendants are not always much more intelligent, however; for the story is told that a gentleman, who asked one of the uniformed policemen, in the neighborhood of the wonderful Corliss engine, how many horse-powers it was supposed to be, got for an answer, "Why, you damned fool, it don't go by horse-power, it's a steam engine!"

Most of the visitors, however, seem to know perfectly

well what they are about, and exercise, to the fullest extent, the Yankee propensity for asking questions; but one often meets, as the day wears on, the tired and foot-sore individual who, without the will to go away, and with the sense of appreciation completely overwhelmed by the wilderness of things that have been passed and are to come, goes wandering about with lustreless eyes until some such familiar object as the Bohemian glass-blower, or the scroll-saw man are found.

We were a little surprised that most of the exhibitors with whom we talked knew so little about the nature of other exhibits belonging to the same class as their own. We have heard the statement made that exhibitions of this kind are little better than great advertising affairs, and that the goods sent to them are not the fair samples of the regular work of the establishments that exhibit them, but are in most instances manufactured for these special occasions. That such is the case, we believe to be the fact in too many instances, nevertheless, we do not think that the criticism will hold good in any unusual number of cases in the present exhibition. The manufacturing druggists and chemists are, however, quite as amenable to this criticism as any other class. The competition among them, together with the showy nature of their goods, may partly account for this; and another and principal reason is, the difficulty of determining the relative values of their wares without subjecting them to actual use. For example, it is hardly to be expected that the judges will decide by personal experiment, how long it is necessary to hold pills in their mouths to dissolve off their coatings, whether they be sugar, gelatine, or Tolu balsam; and although there are on the grounds a model hospital, and another in charge of some of the most skilful physicians of Philadelphia, into which cases of emergency are received, we have doubts of the success of any effort to make them useful in solving the therapeutical values of some of the elegant elixirs, extracts, coated pills, and other pharmaceutical preparations which are exhibited in competition. It may be that the Commissioners appreciated these facts, when in making up their list of judges, in sections 202 to 205, and 272 to 278, they secured the services of some excellent chemists; but were careful to exclude any one who is presumed to know anything about articles of the materia medica or pharmacy. It is certainly no compliment to the exhibitors of crude drugs or medicinal substances, not of chemical origin, that there is no specially qualified judge of these substances, and we are at a loss to know who is to decide, for example, between the merits of the cinchona barks from Peru, those from Indian plantations, and those which, after long and patient toil, are sent as the results of cinchona culture in Java and Mexico. We believe that, before they have finished their labors, the judges will find that pharmaceutical preparations are not chemical products altogether, although chemical products are often required in the manufacture of some of them; and will observe the necessity of transferring many articles that, in the official catalogue, are put in class 200, to class 272, where they naturally belong. What could have led to classing nitrate of potassium with liquorice root and sugar-coated pills with the mineral acids, when there is a separate class intended to embrace "medicine officinal (in any authoritative pharmacopœia), articles of the materia medica, preparations, unofficinal"?

When a firm like the Wallace Brothers, of Statesville, N. C., bring nearly 2,000 specimens, including 250 samples of fruits; 80 of flowers; 137 of woods, and 602 of plants, used as medicine, and valuable because of their medicinal properties, they have a right to expect that the judge who is to pronounce upon the relative merits of their work shall embrace a previously acquired knowledge of the subject, among his other accomplishments, no matter how numerous and thorough the latter may be.

One of the leading advantages which is mentioned as arising from international exhibitions, is the facility with which the products of different countries in similar industries can be examined. In chemical and pharmaceutical products the differences are less likely to be marked than in almost any other class, for the articles themselves are mostly the results of definite and exact processes which can only be employed by men who have had a scientific training, and are hardly influenced by climate, the nature of the country or modes of living, such as affect other industries. Among no class of men is the knowledge of their science or calling more uniformly distributed than is the case among chemists and pharmacists, and any differences which may be apparent in the various exhibits, are the probable results of variations in individual skill and facilities for manufacture; but these very elements are the ones which make criticism difficult, and we shall be glad to avoid it by confining ourselves to generalities, until we have had further opportunities for observation, and until we are able to construct for ourselves a catalogue which will enable us to know what there is at the exhibition. As it is, the official catalogue is by no means to be relied on; for, in addition to the errors in classification just referred to, some of the most important and complete collections in the main building are left *entirely* out; *e. g.*, the Indian, Russian, Turkish, Chilian, and Mexican exhibits.

Many of the German manufacturers, including the manufacturing chemists, have made collective exhibits in large cases of which each exhibitor occupies a section. Everything was arranged before the goods left Germany; indeed an exhibition was made of some of them, and drawings or photographs were sent to indicate just where and how articles were to be arranged. In making up the catalogue, however, the authors of it have simply included under a single heading, the names of the exhibitors in that department, and have made no reference to the specific nature of their wares. We shall give, therefore, only a condensed list of the different classes of goods, as follows:

I. Department of Manufactures.

CLASS 200.—Chemicals, pharmaceutical preparations.
CLASS 201.—Oils, soaps, candles, illuminating and other gases.
CLASS 202.—Paints, pigments, dyes, colors, turpentine, varnishes, printing and writing inks, blacking.
CLASS 203.—Flavoring extracts, essences, perfumery, pomades, cosmetics.
CLASS 204.—Explosive and fulminating compounds.
CLASS 205.—Pyrotechnics.
CLASS 272.—Medicines, officinal (in any authoritative pharmacopœia), articles of the materia medica, preparations, unofficinal.
CLASS 273.—Dietetic preparations, as beef-extracts and other articles, intended especially for the sick.
CLASS 274.—Pharmaceutical apparatus.
CLASS 275.—Instruments for physical diagnosis (except microscopes).
CLASS 276.—Surgical instruments and appliances, with dressings, apparatus for deformities, prosthesis, obstetrical instruments.
CLASS 277.—Dental instruments and appliances.
CLASS 278.—Vehicles and appliances for the transportation of the sick and wounded.
CLASS 285.—India-rubber goods and manufactures.

While we are writing on this subject, we will mention the catalogue of the British section, which for completeness and excellence in everything that constitutes a catalogue, beauty of design and workmanship, and cheapness, is all that could be desired. It comprises 842 pages, in two parts, the first of which is the official Catalogue of the British Section, and the second, an Exhibitor's Commercial Guide, containing, among other papers, the United States Tariff of import duties upon articles of produce and manufactures, together with an epitome of the American laws relating to patents and trade-marks. Each of these parts may be bought separately for fifty cents, or in the form of a single volume, and both are invaluable to one who wishes to become familiar with this section, or who desires a handy book for future reference.

Although the Machinery Hall is full of objects likely to distract the attention of one who is looking for special things, the only pharmaceutical industry represented there in any noticeable manner, is an apparatus used in sugar coating pills. Just now, however, the coating is being applied to almonds and other vegetable products that meet with a more

ready sale than rhubarb, aloes, gamboge, etc. The medical visitor to the Art Gallery should not forget to look in the British section for samples of etchings, by the London surgeon, Mr. Francis Seymour Haden. His "Breaking up of the Agamemnon" (No. 17), and "Calais Pier" after J. M. W. Turner (No. 16), are among his best pieces; the latter being one of the largest attempts at true etching in existence. We would have liked to have seen some of the water colors of Sir Henry Thompson, whose skill as an artist is hardly excelled by his reputation as a surgeon, but we could discover none.

It is with no ordinary degree of pride that the professional visitor examines the model hospital, which the army medical department have erected in the neighborhood of the Government building. As it is approached from the cars the white hospital tents and their adjoining surgeon's tent, awaken memories that seem like dreams to those, who, fifteen years ago, spent feverish nights and laborious days amid the heat and dust of a Southern summer. The ambulance wagons which stand at their side seem like friends that are sometimes met in distant countries. As we enter the northern wing of the model hospital we find miniatures of the steamboats, steam-ships, and railroad trains arranged for the transportation of sick and wounded, and models of some of the barrack hospitals in which American military surgery won for itself such an enviable reputation.

Besides these, there are cases filled with medical and surgical trophies, loaned by the Army Medical and Surgical Museum, that are well known to those familiar with the "Medical and Surgical History of the Rebellion." The opposite wing of the building contains a ward in which is a complete exhibit of the furniture and appliances. In the rear, the kitchen and steward's room are occupied by the culinary and commissary utensils of the establishment; in the front are two rooms devoted to the medical and surgical supplies, and to the books, papers and instruments furnished in the complete outfit for a post hospital. Here we find the only samples of Dr. Squibb's preparations which are shown at the exhibition, just as they came from his laboratory; and, among the books which are supplied to army surgeons, the publications of William Wood & Co. are by no means poorly represented. We are not ashamed to confess our pride at seeing NEW REMEDIES occupying a place of honor in the collection of journals which the Surgeon General's Office provides for its officers.

On the walls of the hall are hung photographs of the cases which recovered from hip amputations and exsections (reported by Surgeon Otis). In both wings, the lower portions of the windows are occupied with photo-micrographs on glass from Dr. Woodward's cabinet, and others, on paper, ornament the walls. One other object attracts most attention from visitors, whether professional or otherwise, viz.: the portrait of Professor Gross. Standing in the operating theatre, he pauses in the midst of an operation, and while an assistant is exploring the wound he addresses the surrounding students. Seated on ascending tiers of benches, the class form a fitting back-ground for a scene in which the chief figure is the master.

The Centennial Judges.—The following corrected list of the judges in Classes III. and XXIV. has been furnished us by the Secretary of the Centennial Commission:—

III.—*Chemistry and Pharmacy, with the Apparatus.*

Prof. C. A. Joy, Columbia College, New York, N. Y.
Prof. F. A. Genth, University of Pennsylvania, Philadelphia, Pa.
Prof. J. Lawrence Smith (*President*), Louisville, Ky.
Prof. C. F. Chandler, Columbia College, New York, N. Y.
Prof. J. W. Mallett, Univ. of Virginia, Charlottesville, Va.
Dr. William Odling, F.R.S. (*Secretary*), Great Britain.
Dr. Rudolph Von Wagner, Germany.
M. J. F. Kuhlman (fils) France.
M. Prosper De Wilde, Belgium.

XXIX.—*Instruments of Medicine, Surgery,* &c.

C. B. White, M. D., New Orleans, La.
J. H. Thompson, A.M., M.D. (*Sec.*), Washington, D. C.
William Roth, M.D. (*President*), Germany.
Ernst Fleischel, Vienna.

BIBLIOGRAPHY.

AN ELEMENTARY TREATISE ON DISEASES OF THE SKIN, for the use of Students and Practitioners, by HENRY G. PIFFARD, A.M., M.D., Professor of Dermatology, University of the City of New York, etc. With Illustrations. London and New York: Macmillan & Co. 1876. 8vo, pp. 378.

This work is divided into sixty chapters of which the earlier ones are devoted to the anatomy, physiology, and pathology of the skin, and liberally illustrated. In classification, the author adopts the natural or etiological system, starting with five principal groups:—1, Diathetic affections. 2, General non-diathetic affections. 3, Reflex affections. 4, Local affections. 5, Affections of uncertain nature. In his first class he embraces syphilides, scrofulides, rheumides, leprosy and icthyosis; and, contrary to the usage of many authorities, he classes eczema, psoriasis and pityriasis under the rheumides, or what French writers call the *dartres*. Acne and rosacea are put among the reflex affections, as well as cases of chloasma which depend, among other causes, upon uterine derangements. Although alopecia areata and impetigo contagiosa are classed with the parasitic affections, the author expresses his doubts of their parasitic nature.

The fifth group, as might be supposed, includes a number of affections whose nature is yet under discussion, but which will ultimately, without doubt, be assigned to the other classes.

The diathetic affections of course consume a larger amount of space than either of the other classes, and it is in the consideration of these that the author appears to do himself most credit; but all are as fully discussed as the elementary character of the work would warrant.

The wood-cuts—copies from Frey, Stricker, Hassall, Sappey, and others—are numerous and of excellent quality; and the student will derive great assistance in comprehending the nature of the changes which take place in the skin and its appendages, from the beautiful photo-micrographs, eight in number, which were taken by the author himself, and have been printed by the Albert process.

We wish that the index had been more complete, and that a bibliographic list had been added. In works intended for students, the latter is especially desirable and generally omitted. As a specimen of book-maker's skill, this is the handsomest medical work we have seen in a long time.

ATLAS OF SKIN DISEASES, by LEWIS A. DUHRING, M.D., Professor of Skin Diseases, in the Hospital of the University of Pennsylvania, etc. Philadelphia: J. B. Lippincott and Co., 1876. Royal 4to, $2.50 per part.

Part 1: Eczema (erythematosum), Psoriasis, Lupus erythematosus, Syphiloderma (pustulosum).

We are especially fortunate, just now, in the "exhibit"—as the saying is now in Philadelphia—of works on skin diseases, and if anything could be lacking in the character of the work just noticed, it is fully made up in this new venture of Professor Duhring's. This, if we remember correctly, is not the first attempt of the author, to give us an atlas of skin diseases, but the former was by the photographic process, and was essentially unsatisfactory, owing to the necessity for the use of color in showing the features and characteristic appearances of dermic affections. In the present instance, Mr. Hermann Faber, the artist whose work is familiar to those who have seen the publications of the Surgeon General's office, has furnished the portraits, and Mr. F. Moras has reproduced them by means of chromo-lithography in a manner to excel any previous work of the kind with which we are acquainted. The text is by Dr. Duhring, and embraces a history of the cases represented, and general remarks upon the features of each disease, its diagnosis, and its treatment. The intention is to complete the series in eight or at most ten parts, and the lithographic drawings are to be erased after the limited edition is printed.

THE PATHOLOGY AND TREATMENT OF CHILDBED: A Treatise for Physicians and Students, by Dr. F. WINKEL, formerly Professor and Director of the Gynecological Clinic at the University of Rostock. From the second German edition, with many additional notes by the author. Translated by JAMES R. CHADWICK, M.D., Clinical Lecturer on Diseases of Women, Harvard University. Philadelphia: Henry C. Lea., 1876. 8vo, pp. 484.

The writer of this treatise is not as well known to the general practitioners of this country as he is to those whose attention has been mainly devoted to the diseases and derangement of women. His reputation in Germany, however, is well established, for in 1872 (since the appearance of the second edition) during a fatal epidemic of puerperal fever in the Lying-in Institution in Dresden, the Royal Department of Internal Affairs requested him to undertake the management, and showed their confidence in his judgment by giving him *carte blanche* as regards expenditures, or changes in the mode of organization and management.

In his preface to the first edition, he declares that he has aimed, instead of adducing arguments, "to set forth clearly all well authenticated principles that are based upon experience; to acquire new facts, and corroborate old ones."

The second edition appeared at the end of July, 1869; and in republishing it in this country, some cases have been omitted, and the space utilized for the addition of more recent matter furnished by the author, with a view to bringing the work up to the present state of our knowledge. As works devoted exclusively to this subject are by no means common, we take the liberty of giving the headings of the different chapters as an indication of the contents.

SECTION 1.—I. Genital Lesions of Lying-in Women (53 pages). II. Displacements of the Vagina and Uterus (20 pages). III. Hemorrhages from the Genital Organs of Women in Childbed (41 pages). IV. Inflammation of the Genital Organs in Childbed (120 pages). V. Puerperal Thrombosis and Metastatic Pyæmia (57 pages). VI. Nomenclature and Varieties of the Infectious Puerperal Diseases (6 pages). VII. Etiology of the so-called Puerperal Fever (47 pages). Appendix: The Causes of Sudden Death in Childbed (5 pages).

SECTION 2.—I. Diseases of the Nipples (8 pages). II. Diseases of the Integument of the Breast and of the Submammary Connective Tissue: Paramastitis (5 pages). III. Inflammation of the Mammary Gland (10 pages). IV. Irregularities in the Secretion of Milk (10 pages). Appendix: The so-called Milk Fever (7 pages).

SECTION 3.—I. Affections of the Urethra and Bladder (8 pages). II. Affections of the Articular Ligaments of the Pelvis (9 pages). III. Neuralgia and Paralysis of the Lower Extremities (12 pages). IV. Puerperal Eclampsia (9 pages). V. Mental Affections of Lying-in Women (20 pages). VI. Skin Diseases of Lying-in Women (14 pages).

Owing to the general arrangement of the matter, and the number of cases reported, this is essentially a clinical treatise; and in it we observe, for the first time, the distinction of affections which have heretofore often passed under the name of "puerperal fever." In chapter VII. of section I., we have an interesting historical sketch of this disease, in the course of which he says: "When the very significant term *puerperal fever* is applied now-a-days to the most severe diseases of childbed, the phlegmonous and diphtheritic affections of the genitals are thereby chiefly intended, from which a variety of the malady mentioned in the previous chapter [Septicæmia] is subsequently developed. The important fact should be borne constantly in mind, that the above-named processes do not possess any specific character; nor are they by any means restricted to pregnant, parturient, or lying-in women." In the bibliographical list which accompanies this chapter, the literature of this subject comes no nearer than 1871, leaving entirely out of account the discussions in London, of last year, which had more to do with the settlement of this question than anything that has been written in modern times. It may however, be said that opinions of Dr. Winkel differ in no essential degree from the conclusions then arrived at.

The translation has been very well made, and the table of contents which we give is sufficient to show that this is a book which but few general practitioners can afford to be without.

AN INTRODUCTION TO PATHOLOGY AND MORBID ANATOMY. By T. HENRY GREEN, M.D., Lond., etc. Second American, from the third revised and enlarged English edition. Illustrated. Philadelphia: HENRY C. LEA. 1876. 8vo, pp. 316.

IT is an encouraging sign for those who are interested in improving the character of medical education in this country, that works on pathology, like this, are meeting with an increased demand among medical students. It may partly be because a book like this presents the subject so clearly, succinctly, and at the same time with sufficient completeness to convey a knowledge of the general character of the subject, that it is easier for a student to read it, and feel the satisfaction which comes from comprehending it, than it is to skim over more abstruse works or listen in ignorance to lecturers who will tell about new formations and pigmentary degeration, myxomata and thrombosis, lukæmia and heterology &c. The student who wishes to pursue the subject in greater detail will find here a list of the principal works on histology and pathology, as well as a chapter which relates to the preparation and mounting of specimens. The text is illustrated with one hundred and eleven engravings on wood, drawn from microscopic preparations by the author, or taken from the works of such authors as Cornil, Rauvier, Rindfleisch and Virchow.

C. E. HOBBS' BOTANICAL HAND-BOOK of Common Local, English, Botanical and Pharmacopœial Names, arranged in Alphabetical Order, of Most of the Crude Vegetable Drugs, etc., in Common Use: Their Properties, Productions and Uses, in an Abbreviated Form. Compiled and published by CHARLES E. HOBBS. Boston: 1876. 8vo, pp. 271.

IT is evident that the author must have undertaken and carried through this work during the twelve years consumed in its compilation, *con amore*, rather than from any prospect of great pecuniary results; nevertheless, the list of names compiled is so considerable, the convenience of their arrangement so practical, and the information in reference to the properties, productions, &c., of the different substances so useful, that there are few druggists or pharmacists who can afford to be without it, and students of materia medica and botany will find it a valuable aid. Each page is divided into three columns. In the first section, these columns give, respectively, the common, the English, and the botanical names, making, in all, over 8,000 references. The second section comprises the botanical and the common names, and the third column gives abbreviated descriptions of the properties, productions, uses, etc. The third section embraces the pharmacopœial, the common, and the botanical names. When we consider the confusion which exists in the nomenclature of vegetable substances, outside of botanical classifications—amounting, according to the author, to the use of the name Snake Root for about a dozen different articles; three being known as Checkerberry, five as Yellow Root, &c.—the importance of Mr. Hobbs' work is apparent. We hope its merits will meet with the pecuniary endorsement they deserve.

MEDICINAL PLANTS. Being descriptions, with Original Figures, of the Principal Plants Employed in Medicine, and an Account of their Properties and Uses. By ROBERT BENTLEY, F.L.S. and HENRY TRAINER, M.B., F.L.S. Philadelphia: Lindsay & Blakiston. Price $2 per part.

Part 4:—*Brassica (sinapis) nigra, Brassica (sinapis) alba, Linum usita tissimum, Ruta graveolens, Citrus limonum, Paullinia sorbilis, Dorema Aucheri.*

Part 5:—*Helleborus niger, Chondrodendron tormentosum, Hæmatoxylon Campechianum, Hagenia Abyssinica, Datura stramonium, Atropa belladonna, Fiscus carica.*

Thirty-six of the illustrations, and their accompanying text, of this beautiful work have already come to hand, and there is no apparent abatement in their excellence. The promise that each part shall contain eight colored plates

is hardly complied with, seven being the number in all but the first one; nevertheless the quality of the plates and the practical and comprehensive nature of the letter-press make the work fully equal to the price, when the expense of such an edition is considered.

ON THE TREATMENT OF CHRONIC ECZEMA BY GLYCEROLE OF SUBACETATE OF LEAD.—By Balmano Squire, M.B. London, privately published, pp. 31. In another part of this journal we publish Mr. Squire's directions for making this new preparation, and it is only necessary to say here that his declaration that he has found it of great use in eczematous affections is sufficient to warrant an early trial of it.

ANLEITUNG ZUR QUALITATIVEN UND QUANTITATIVEN ANALYSE DES HARNS, sowie zur Beurtheilung der Veränderungen dieses Secrets mit besonderer Rücksicht auf die Zwecke des praktischen Arztes. Zum Gebrauche für Mediciner, Chemiker, und Pharmaceuten. Bearbeitet von Dr. C. NEUBAUER und Dr. J. VOGEL. 7te. Aufl. mit 3 lith. Tafeln, 1 Farbentabelle und 38 Holzschnitten. 8vo.

THE rapid succession of new editions of this book proves how valuable a work the authors have placed into our hands. It is certainly the best authority on the subject which exists in any language. The new edition has been again improved by the additions of new material, namely, the chapters on *pyrocatechin*, *acetone* and the two new pathological coloring matters (discovered by Baumstark), viz., *urorubrohæmatin*, and *urofuscohæmatin*. The chapter on *accidental constituents of urine* has likewise been considerably augmented; and in the second portion of the work the following additions, among many, deserve to be noticed: determination of specific gravity with Mohr & Westphal's balance; Knop-Hüffner's easy and rapid urea-determination; Bunsen's method for the same, modified by Bunge; Volhard & Falk's new chlorine-determination; Wild's polaristrobometer; Hilger's new iodine-determination; and Salkowski's new method for the estimation of uric acid. The work is indispensable to chemists and physicians, and should at once be made accessible to those unfamiliar with German by a new translation.

GEO. P. ROWELL & CO'S AMERICAN NEWSPAPER DIRECTORY, containing accurate lists of all the Newspapers and Periodicals published in the United States, Territories, the Dominion of Canada, and Newfoundland. New York: Geo. P. Rowell & Co., 1876. 8vo, pp. 1032.

WE view this bulky volume with astonishment at the magnitude of the newspaper business of this country, as shown by its extensive list; at the immense number of advertisements it contains, and at the enterprise and business ability displayed by the house which has published the work. The catalogue of papers and journals aims to give, in addition to name, the editors, publishers, locality, size of page, circulation, etc., of all the eight thousand six hundred and seventeen publications contained in it.

The circulation of a journal is a matter of very great importance to advertisers, and the following extracts in relation to the Drug journals of the country will interest our readers.

Estimates of circulation are sometimes too high, as we think some of these are, but we quote:—

		Circulation
Druggists' Circular and Chemical Gazette	estimated	4,000
American Journal of Pharmacy	"	2,500
Boston Journal of Chemistry	"	4,000
New York Oil, Paint and Drug Reporter	"	1,800
Humphreys' Paint and Oil Trade	"	2,500
American Chemist	"	1,000
Boston Laboratory	"	2,350
Chicago Pharmacist	"	2,000
New York Druggists' Journal	"	2,000
NEW REMEDIES	"	5,000

Of the last "estimate," concerning NEW REMEDIES, we need only say that it is unnecessary for any one to guess at its circulation, since it is printed each month in a conspicuous part of the journal. The publishers inform us that 36,500 COPIES OF NEW REMEDIES have been issued so far this year, being an average of 7,300 COPIES A MONTH.

This fact is not one to be overlooked by those who wish to come before the Drug Trade of America.

BOOKS AND PAMPHLETS RECEIVED.

Greenhouse (The). Its Plants and their Management for the Many. By the Editors of the Journal of Horticulture. New Ed. 12mo, pp. 134.

Hooker (J. D.). Botany. With illustrations. (Science Primers.) 18mo, pp. 118.

Le Maout (E.) and **Decaisne** (J.). A General System of Botany, Descriptive and Analytical. Translated by Mrs. Hooker. The Orders arranged, with Synopsis, by J. D. Hooker. 2d. Ed. 4to, pp. 1066.

Sowerby (J. E.) and **Johnson** (C. P.). British Wild Flowers. New Ed. with Supplement, by John W. Salter; and the Ferns, Horsetails and Club Mosses, by John E. Sowerby. Roy. 8vo.

Irving's Catechism of Chemistry. Exhibiting a concise View of the Present State of Science. New Ed. Revised by Robert James Mann. 18mo.

MacKenzie (Morell). The Pharmacopœia of the Hospital for Diseases of the Throat. 3d Ed. 12mo, pp. 128.

Poore (George Vivian). A Text-Book of Electricity in Medicine and Surgery, for use of Students and Practitioners. Post 8vo, pp. 304.

Maisonneuve (Paul, M.D.). Etude sur la Structure et les Produits du Camphier de Borneo ou Dryobalanops Aromatica. Avec une planche. 8vo, pp. 68.

Leblanc (Dr. F.). Essai sur les modifications de la Pupille produites par les Agents Thérapeutiques. 8vo, pp. 166.

Bolley's Handbuch der technisch-chemischen Untersuchungen. 4te. Aufl. von Dr. E. Kopp. 2 parts. 8vo, pp. 856.

Cohn (Dr. F.). Beiträge zur Biologie der Pflanzen. 3tes. Heft. 8vo, pp. 226.

Krafft (Dr. F.). Über die Entwicklung der Theoretischen Chemie. 8vo, pp. 56.

Frühling (Dr. R.) und **Schulz** (Dr. J.). Anleitung zur Untersuchung der für die Zuckerindustrie in Betracht kommenden Rohmaterialien, Producte, Nebenproducte und Hülfssubstanzen. 8vo, pp. 203.

Annuaire médical et pharmaceutique de la France; par le docteur Félix Roubaud. 12mo, pp. 492.

Cernuschi (H.). La Monnaie bimétallique. 8vo, pp. 63.

Dammer (O.). Kurzes chemisches Handwörterbuch. 8vo, pp. 820.

Mayer (A.). Lehrbuch der Gährungschemie. 8vo.

Rosebrough (A.M., M.D.). Pamphlets relating to the Toronto Eye and Ear Infirmary, of which Dr. Rosebrough is Surgeon, and to the treatment of Acute Iritis, and other eye affections of common occurrence.

Yandell (L. P. J., M.D.). A report on Dermatology, pp. 7. Privately published.

Squire (Balmano). On the Treatment of Chronic Eczema by Glycerole of Lead. Pp. 31, paper. From the Author.

Green (S. Henry). An Introduction to Pathology and Morbid Anatomy. Second American, from the 3d revised and enlarged English Ed. Illustr. Henry C. Lea.

Winkel (Dr. F.). The Pathology and Treatment of Childbed. From the 2d German ed., with many additional notes by the author. Henry C. Lea.

Piffard (Henry G.). An Elementary Treatise on Diseases of the Skin, for the use of Students and Practitioners. Macmillan & Co.

Planchon (G.). Traité Pratique de la Détermination des Drogues Simples d'Origine Végétale. Illustr., pp. 536. F. Savy.

Announcement (Annual) of the University of Michigan, Department of Medicine and Surgery.

Announcement (Annual) of the Woman's Hospital and Medical College, Chicago, Ill.

Résumé of the Transactions of the International Medical Congress at Brussels, 1875. (Privately published by a delegate.)

Report (Annual) of the Indiana University, Medical Department.

Record of the Year. Monthly, pp. 112. G. W. Carleton & Co.

Proceedings of the Medical Society of the County of Kings. May.

Report (Second Annual) of the New York Society for the Suppression of Vice.

Piffard (Henry G.). The Proper Construction, Care and Uses of the Galvano-Cautery Apparatus. (Privately printed.)

Report (Eighty-sixth Annual) of the Board of Trustees of the New York Dispensary. (Privately published.)

Elsberg (Louis). On Auscultation of the Œsophagus. (Privately published.)

Helmick's (F. W.) List of Counterfeit Notes now in Circulation in the United States. Pp. 9, $0.25.

Weir (Robert F.). On the Normal Urethra and its Constrictions in Relation to Strictures of Large Calibre. Pp. 21. (Privately published.)

Becker (F.). Beiträge zur Kenntniss des Tellurs. Inaug.-Diss.

Dragendorff (G.). Die Gerichtlich-chemische Ermittlung von Giften in Nahrungsmitteln, etc., 2d ed. 8vo.

Gorup-Besanez (E. F. v.). Lehrbuch der Chemie, I. Anorganische Chemie, No. 1. 6th ed. 8vo.

Engel (R.). La Série grasse et la Série aromatique. 8vo.

Wagner's Jahresbericht der Chemischen Technologie; Generalregister zu Bd. XI.–XX. 8vo.

Schenck (S. L.). Der grüne Farbstoff von Bonellia viridis, 8vo.

Springmühl (F.). Lexikon der Farbwaaren und Chemikalienkunde. Vol. 1, No. 1, 8vo.

Youmans (Edward L.). A Class-Book of Chemistry on the Basis of the New System. Rewritten and Revised, with many new Illustrations. 12mo, pp. 348.

Pepper (J. H.). Chemistry, Electricity, Light. Illustr. 16mo, pp. 426.

Edgerow (Geo.). New Electrolytic Treatment of Cancer. 8vo.

Colvin (Verplank). Winter Fauna of Mount Marcy. 8vo, pp. 16.

Irving's Catechism of Chemistry. Exhibiting a Concise View of the Present State of the Science. New ed. Revised by Robert Jas. Mann. 18mo.

New Works Announced.

Bartholow (Robert). Practical Treatise on Materia Medica and Therapeutics.

CORRESPONDENCE.

On the Use of Tincture of Arnica Externally.

To the Editor of New Remedies.—Dear Sir:—Owing to my short acquaintance with your valuable journal, its January number of this year came only a few days since to my knowledge, and as it brings on page 16 a severe charge against the well-established reputation of Arnica, as a very effective and beneficial medicament, I beg you to admit these few lines into the columns of your paper for an endorsement of those statements made by other practitioners.

Though the German name for Arnica is *Wohlverleih*—weal-bestowing—it deserves this name only under the condition that it be properly applied, for it has not only its well-defined indications, but also such serious, terrifying contra-indications that German governments, especially the Prussian, classing Arnica among the Acria, have already, more than fifty years ago, issued laws to their apothecaries prohibiting its sale, except on prescriptions from authorized physicians.

Experiments with Arnica on horses have, according to Schuchardt, rendered the following results: small doses accelerated the pulse, raised the temperature of the skin, increased the secretion of urine, and caused tremor of the muscles. The violence of these phenomena increased with the augmentation of the dose, causing frequent evacuations of fæces and urine, violent tremor, accelerated respiration and prostration. Injections of an infusion of Arnica-flowers into the veins caused considerable excitation, soon followed by intense languidness, vertigo, and even death, and on examination the organs of the chest and abdomen, the cerebrum and spine were found engorged with blood.

In man the series of symptoms are the following: any part of the Arnica-plant applied to the skin causes an itching, burning sensation, accompanied by redness; though its fragrance is agreeable, it will, in closer proximity, cause sneezing, so much so, that the Savoyards are using it instead of snuff. Small doses of 4 to 10 grains exert an irritating effect on the fauces and larynx, on the stomach and the alimentary canal, manifesting itself by a burning, scratching sensation, cardialgia, abdominal pains, nausea, belching, vomiting, frequent evacuations, the circulation is accelerated, accompanied by increase of warmth of the body, the secretions are increased, especially those of the urine, the skin and the lungs. The continued use of the Arnica will cause numbness of the head, vertigo, mental depression, restless sleep, oppression of the lungs, jerking pains, like electric strokes, in the extremities, &c.; increase of the dose will aggravate all these phenomena, especially the affections of the brain.

The hot infusion acts severer than the tincture, and the flowers are more exciting than the root. This series of symptoms indicates that Arnica may find its place in all those diseases which manifest a character of torpor, wherever an acceleration of the circulation is desirable, in order to remove and scatter stagnating humors.

Arnica is in Germany so extensively, so frequently used, that some apothecaries have to keep the infusion, by the quart, on hand, preparing it every morning fresh (℥ j of the flowers steeped for 15 minutes in 6 ounces of boiling water). It has maintained its old reputation as *Wohlverleih* in a variety of cases, especially where the vitality of the nerve-centres, brain and spine, is oppressed, in extravasations, paralyses consequent upon apoplectic strokes, rheumatism, catarrh, pleurisy and pneumonia, in traumatic commotions of the brain, in typhoid fevers with torpor and paralytic affections, &c.

The external use of Arnica is very limited, and especially contraindicated in recent traumatic cases; it should never be applied before all tendency to inflammation is removed by the antiphlogistic applications; it can therefore seldom find its place before the lapse of seven days after the injury; then, and not before then, the tincture, properly diluted in combination with other remedies for the stimulation of the capillary vessels may be applied, perhaps like this:

℞ Tincturæ flor. Arnicæ ℥ ss, Aceti ℥ ss, Aq. Camphoræ, ℥ vj d. g. for external use.

A. PATZE, M. D.

WASHINGTON, D. C., May 16, 1876.

Remarks upon Pill-Coating and the Solubility of Pills.

THE practice of coating medicinal pills with various materials, in order to avoid the disagreeable taste of nauseous substances, may be considered to be one of the improvements of the age in pharmacy, because, while a deal has been written in favor of plain pills as opposed to all kinds of coated pills, the demand for coated pills of various kinds increases, and consequently we have a continued discussion of the advantages of the various methods employed, with more or less misrepresentation.

Of course if a plain pill could be retained and distributed in the market, in the same state of softness as when recently made by the dispensing apothecary, and if the stomach would accept this soft mass without any coating as readily as a pill coated with some agreeable substance like sugar or gelatine, no improvement would be necessary; but plain pills in a soft condition are only fit for immediate use, as they cannot be kept soft for any considerable period without some kind of coating, and they cannot be packed in boxes and retain the pill form without being carefully dried; the usage is, to have them very thoroughly dried to be fitted for market. One of our largest vendors of proprietary pills informs us that so important is this matter of careful drying considered to be, that his usage is to test his pills before boxing by placing a considerable quantity on a flat surface under a heavy weight for some hours, and they are only adjudged to be fit for market when the round form is perfectly retained.

But plain, round pills, as found in market, are subject to other important objections,— the surface is always more or less rough; and besides the objection of taste, they cannot be swallowed as easily as a smooth, oval or spheroidal pill, or even a round pill, smoothly coated with some agreeable or tasteless substance like sugar or gelatine, as these coatings dissolve readily and assist in carrying the pill to the stomach. Sugar-coated pills have an agreeable covering, but they are subject to the same objections which pertain to plain pills; they cannot be made to keep without being very carefully dried; in fact, the greatest precaution in drying the pill, before coating, is necessary, because, should the least moisture exude from the mass of the pill after coating, this coating becomes discolored or destroyed; hence the usage is to kiln-dry the plain pill as carefully as possible, and then cover with some resinous varnish before coating with sugar. Both plain and sugar-coated pills are always found in market in a hard, dry state,— the plain are dried, that the pill form may be retained, and the sugar-coated, that the coating may be preserved; and hence gelatine-coated pills in oval form have many advantages, because they can be made, in fact must be, covered with gelatine while in a soft state, as the pills require to be quite soft whenever covered with pure gelatine, in order that they can be penetrated with needles and held separately until the coating is dry.

The oval also is, for a number of reasons, a better form of pill, because it can be more easily swallowed, and it is a considerable test that the pill has been covered while soft; for a soft, round pill will become more or less oval or spheroidal in the necessary process to which the pill requires to be subjected in coating. Furthermore, gelatine is a much better covering than sugar, because it can be successfully applied to a soft mass, and when so applied it will protect the mass and preserve the pill in good condition for a long period. Almost all sugar-coated pills will discolor in time, while gelatine-coated pills, properly prepared, will remain in good condition for a long period, and when the gelatine is moistened in the mouth are easily swallowed, because the covering facilitates the descent of the pill to the stomach. The gelatine covering in fact cannot be retained in the mouth many seconds without dissolving completely and leaving the pill in all respects a plain pill, in fact, as usually found, a plain, soft pill, in all respects similar to pills recently made by the dispensary apothecary.

Various statements of the comparative solubility of pills have been published from time to time, apparently in the interest of some particular process, of which the most important, from the position it occupies, is that of Professor J. P. Remington, of Philadelphia, as published in the proceedings of the American Pharmaceutical Association for 1875. In this article, Professor Remington arrives at the wise conclusion, that of all pills, plain, uncoated pills are the most soluble, as, no doubt, he found them, and as they should be, provided the mass of these pills is in good condition; but he appears to overlook the fact that plain, uncoated pills may exist in very diverse conditions, and that the difference between a soft, recently prepared pill and an old, or carefully dried one, ought to be considerable. The writer then proceeds to express his astonishment at the readiness with which the sugar-coated pills that came into his hands did dissolve, when the main fact in the case should have been apparent; to wit: that the solubility of sugar-coated pills is not influenced to any considerable extent by the coating of sugar, but, as in the case of the plain pill, it depends upon the condition of the pill itself; and Professor Remington's concluding remarks upon sugar-coated pills prove to be as might have been expected; thus he assures us that whatever defect existed in the sugar-coated pills which came into his hands, did not come from the coating, but existed in the pill itself.

Gelatine coating, or, as our professor of pharmacy says, "*more properly glue coating*, proved to be a disappointment, as in several cases the coating refused to release the pill for many hours, and in some cases, even after standing, the liquid was not colored, etc.," all which, like his experiment on sugar, should have been anticipated, for, while it is the nature of sugar to dissolve quite readily in warm or cold water, neither gelatine nor glue will incorporate readily with water, as sugar does, a fact which every mechanic familiar with glue, and every housewife familiar with gelatine or table jelly, understands; as also that, while a lump of ordinary glue or a spoonful of jelly will dissolve quite readily in hot water or in the human mouth, neither of these will dissolve as common sugar does, and the professor should know that a gelatine-coated pill, taken into the mouth, cannot be retained many seconds without the gelatine disappearing. But why call gelatine coating "*glue coating*," when pure gelatine should only be used in coating pills; and the term glue should only be applied to impure gelatine; further, if a gelatine-coated pill should be called a glue-coated pill, why not call gelatine capsules glue capsules? for, in fact, a gelatine-coated pill in good condition is only a form of soft pill mass enclosed in a capsule of gelatine; the soft pill, as used in the process of manufacture, being in fact the mould around which the capsule is formed.

In conclusion, we beg to suggest that there should not, it appears to us, be any dispute about the comparative merits of pill forms or pill coatings, because oval or spheroidal pills are more easily swallowed than round pills can be, and gelatine coating is superior to sugar coating, because it can be applied to a soft mass, and sugar cannot, because it will preserve a plain, soft mass in form for an indefinite period, and this coating, however old, will remain unchanged, and will dissolve quite readily in the mouth or in the stomach. Future improvements in pill-making, whenever pills are not intended for immediate use, should be directed, not to the form nor to covering, but to excipients, to overcome, if possible, the tendency of a soft mass to harden and become less soluble with age, for it is a fact that should be understood, at least by professors of pharmacy, that almost all masses, however covered, will harden with age; as, for example, while Blue Mass (Pil. Hydrarg.) can be covered soft with gelatine, and kept soft for many years, other masses, like iron compounds, quinine, etc., tend to harden more or less speedily, and hence the unfairness of any examination like that undertaken by Professor Remington, for a fair test of the comparative merits of various coated pills, in so far as solubility is concerned, can only be undertaken when the pills under examination are known to be of similar age, and when they have been prepared with similar excipients.

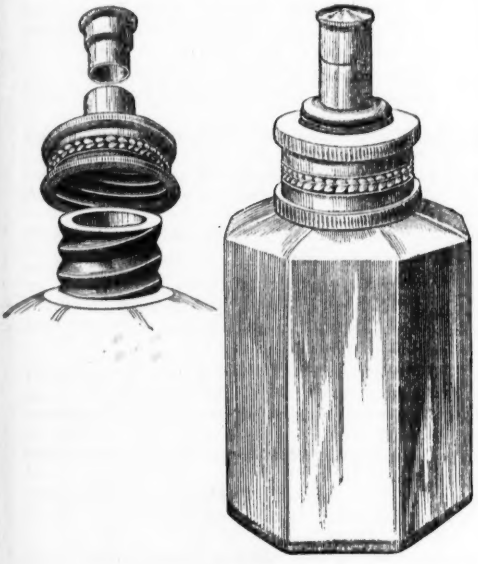
D. C. ROBBINS.

NEW YORK, May 17, 1876.

PHARMACEUTICAL SUNDRIES AND NEW INSTRUMENTS.

Tooth-Powder Bottle.

Samuel S. White, of Philadelphia, is the proprietor of a very economical and ornamental bottle for holding and serving tooth-powder, of which the cut beneath is a representation. A silver-plated metallic cap, which is held by a screw-thread on the neck of the bottle, can be removed in order to fill it, and a smaller tube, which is closed with a metal plug, permits the escape of the right quantity of powder. To the trade the bottles are sold without labels, from $2.00 to $3.75 per dozen, according as they are furnished with or without boxes and powder, and are calculated to be good additions to a stock of toilet articles.



Glyconin with Cod-Liver Oil.

Buntim & Armstrong, of Terre Haute, Indiana, send us a sample of an emulsion of cod-liver oil, which is said to contain, in each fluid-ounce, five drachms of genuine Norwegian cod-liver oil, one drachm of glyconin, and thirty drops of dilute phosphoric acid. Glyconin is commonly understood to be an emulsion made of five parts of glycerine with four parts of egg-yolk, and is certainly no harmful ingredient of such a mixture, if it is the substance employed. Like several other emulsions of this oil, the present one has a very decided odor and taste of bitter almonds, and it is quite as palatable and free from taste of the oil as any we have met with. There is but a slight apparent tendency on the part of the oil to separate on standing, and a slight shake renders the mixture homogeneous.

"Cat-Tail" *(Typha latifolia)* is said, by *The Popular Science Monthly*, to be used in some parts of Russia as an article of food; the young shoots being employed in the same manner as those of asparagus, and are said to be delicious.

NEW PATENTS AND LAWS.

TRADE MARKS REGISTERED IN U. S. PATENT OFFICE.

Certificates dated May 2, 1875.

3,646. **Rubber Goods, Consisting of Syringes, Breast-Pumps, Nursing-Bottle Fittings.**—American Rubber Company, Boston, Mass. "Word 'DOMESTIC.'"

3,650. **Chills and Fever Medicine.**—Charles J. Hart, Dryden, N. Y. "Words 'THE LAMAR CHILLS AND FEVER EXTERMINATOR.'"

3,651. **Medical Compounds for Throat and Lung Diseases.**—William Hughes, Allegheny, Pa. "Words 'HONEY OF TAR.'"

3,653. **Cosmetic.**—Edgar B. Whiting, San Francisco, Cal. "Words 'WHITING'S CRÈME VEGETALE;' and the monogram medallion 'W. C. V.'"

Certificate dated May 9, 1876.

3,661. **Pile Ointment.**—Robert Rumford, Philadelphia, Pa. "A portrait of myself."

Certificate dated May 16, 1876.

3,688. **Tonic Preparation of Iron.**—Florentine J. Boudraux, St. Louis, Mo.

3,669. **Medical Compounds.**—C. V. L. Pitts & Co., Kingston, N. Y. "Words 'OLD HOME.'"

3,671. **Lubricating Oils.**—Dawson & Watson, Smith's Ferry, Pa. "Words 'AMBER LUBRICATING OIL WORKS.'"

Certificates dated May 23, 1876.

3,712. **Bitters.**—Winder & Shearer, San Francisco, Cal. "A picture or representation of an American Eagle, perched or standing upon a cactus plant, with a serpent held in its beak."

3,713. **Bitters.**—Winder & Shearer, San Francisco, Cal. "Words and letters 'BAJA CALIFORNIA DAMIANA BITTERS.'"

LABELS REGISTERED IN THE U. S. PATENT OFFICE.

Certificates dated April 4, 1876.

3,551. **Washing Crystal.**—The American Lye Company, Philadelphia, Pa. [Filed March 16, 1876.] "The words 'Chinese Compound,' and the figure of a Celestial standing at a tub washing, in connection with our firm-name, 'American Lye Company,' the whole printed invariably in blue.'"

3,552. **Lye and Potash.**—The American Lye Company, Philadelphia, Pa. [Filed March 16, 1876.] "The words 'American Lye, the Ready Family Soap Maker,' and the figure of an eagle, erect upon a base of rocks, and carrying a tin can painted with the words 'Manufactured by the American Lye Company, Philadelphia,' depending by a cord from its neck."

3,553. **Caustic Lye, Potash, Washing-Crystals, and Blues.**—The American Lye Company, Philadelphia, Pa. [Filed March 16, 1876.] "Our firm name, 'American Lye Company,' and the figure of an eagle carrying, by means of a cord around its neck, a metallic can."

3,556. **Vermifuge.**—Edwin A. Hall, Lynn, Mass. [Filed March 13, 1876.] "Number '2,905.'"

3,557. **Pills.**—William N. Hedges, Springfield, Ohio. [Filed Feb. 5, 1876.] "Words and letters 'Father Partington's Popular Pills.'"

Certificates dated April 18, 1876.

3,584. **Tonic Beer.**—Garren & Billger, Philadelphia. [Filed Mar. 31, 1876.] "A triangular-shaped figure."

3,597. **Preparation Employed for the Prevention of Acid Fermentation in Beer,** etc.,—Gélier & Co., New York, N. Y. [Filed March 9, 1876.] "Words 'Anti-Acid Fermentine.'"

Certificates dated April 4, 1876.

640. **"Tallow Marrow-Oil."**—Edward H. Kellogg, New York, N. Y. [Filed March 25, 1876.]

641. **"Improved Elaine-Oil."**—Edward H. Kellogg, New York, N. Y. Filed March 25, 1876.]

Certificates dated April 11, 1876.

649. **"Dr. Ottofy's Instantaneous Remedy."**—"Leopold Ottofy, Cincinnati, Ohio. [Filed April 4, 1776.]

657. **"J. N. Walter's Infallible Salve."**—John N. Walter, New York, N. Y. [Filed April 1, 1876.]

660. **"Century Pure White Lead."**—Thomas A. Kelly, Cleveland, Ohio. [Filed April 7, 1876.]

662. **"Poultry Powders."**—P. A. Long, Tarrytown, Md. [Filed March 21, 1876.]

663. **"Olds' Infallible Cure for Fever, Ague, and Debility."**—E. F. Olds, M.D., Philadelphia, Pa. [Filed April 1, 1876.]

664. **"Dr. Utley's Lightning Relief."**—Rufus Utley, South Bend, Ind. [Filed April 7, 1876.]

Certificates dated April 18, 1876.

672. **"Shaw's Railroad Liniment."**—Edward Shaw, Richmond, Ind.

Certificates dated May 2, 1876.

692. **"The Great Family Medicine."**—F. Herring & Sons, Goshen, Ind.

683. **"Dr. Herring's Veronica Lung Extract."**—F. Herring & Sons, Goshen, Ind.

700. **"Mrs. Miller's All-Healing Salve."**—Mrs. George Miller, Albion, Mich.

702. **"James G. Steele & Co., Perfumers."**—James G. Steele, San Francisco, Cal.

Certificates dated May 9, 1876.

703. **"The Genuine Dr. Fisher's Golden Seal."**—James E. Blake, New Bedford, Mass.

704. **"Oriental Electron."**—Henry M. Duryea, New York, N. Y.

709. **"Wiggins, Rheumatic Compound."**—T. Scott & Co., Northfield, Iowa.

Certificates dated May 16, 1876.

712. **"Tonic Friction Bath."**—George W. Holleman & Co., Morganton, N. C.

713. **"A. H. Meyer's Diamond Blood Searcher."**—Addison H. Meyers, Augusta, Ohio.

714. **Neff's Ague Cure."**—D. Neff & Co., Kingston, Mo.

715. **"Dr. Ragland's Lightning Relief."**—J. B. Ragland, Jackson, Tenn.

716. **"Ritmeier's German Essence of Life."**—W. Ritmeier, Milwaukee, Wis.

718. **"Baja California Damiana Bitters."**—Winder & Shearer, San Francisco, Cal.

719. **"Sanford's Jamaica Ginger."**—Weeks & Potter, Boston, Mass.

Certificates dated May 23, 1876.

720. **"Holloway's Pills."**—Joseph Haydock, New York, N. Y.

722. **"Dr. Kennett's Vital Bitters."**—Smith & Corscaden, Providence, R. I.

NEW PATENTS.

[We will furnish gratis, to subscribers, any information relating to new patents which can be obtained from the Official Gazette of the Patent Office; and for 50c. will give copies of the drawings of such as are illustrated.]

Patents granted April 4, 1876.

175,550. **Artificial Fuel.**—Bartholomew Berghausen and A. Z. Kiesling, Cologne, Germany.

175,583. **Compressed Chloride of Ammonium.**—John Wyeth, Philadelphia, Pa.

175,608. **Filters.**—Edward E. Houghton, Cambridgeport, assignor to Caleb C. Walworth, Boston, Mass.

175,609. **Pneumatic Pressure-Pumps.**—J. S. Hull, Cincinnati, Ohio. [To be used on barrels or closed vessels.]

175,615. **Paint-Brush Attachments.**—E. P. Mackintosh, Brooklyn, N. Y.

175,626. **Angle-Attachments for Dental Engines.**—Eli T. Starr, Philadelphia, Pa., assignor to Samuel S. White, same place.

175,652. **Grinding-Mills.**—O. B. Blakeslee, Rankin, Ill.

175,658. **Refrigerators.**—Gottlob Brown, Milton, Pa.

175,683. **Paints.**—John Fitzer, Rolla, Mo.

175,684. **Oil-Cans.**—John S. Field, Brooklyn, N. Y.

175,689. **Vegetable-Cutters.**—Martin Gillespie, East Palestine, Ohio.

175,701. **Apparatus for Oxidizing Metals.**—G. L. Harrison, Jr., and M. C. Wilson, Philadelphia, Pa.

175,706. **Dental Rubber Dams.**—Henry C. Howells, Flushing, N. Y.

175,734. **Sulphuric Acid Packages.**—W. H. Nicholls, Brooklyn, N. Y.

175,735. **Gelatin-coated Explosive Compounds.**—Alfred Nobel, Paris, France, assignor to Charles Eugene Armengaud, Sr., same place.

175,744. **Processes of Making Coke.**—W. Penrose and Wm. F. Richards, Swansea, England.

175,749. **Compositions for Destroying Insects.**—Geo. W. Powell, Halifax County, Va.

175,751. **Sap-Collectors.**—August Pudigen, Monk's Corners, S. C.

175,756. **Vegetable-Cutters.**—Friedrich Reutschler and John Keck, Ann Arbor, Mich.

175,759. **Bottle-Stoppers.**—Augustus E. Rich and Chas. S. Sawyer, Fall River, Mass., assignors to themselves and James H. Crittenden, same place.

175,760. **Preparation of Koumiss.**—Robert Rohland, New York, N. Y.

175,789. **Chemical Fire Extinguishers.**—Jacob B. Vandyne, Louisville, Ky.

175,795. **Truss-Pads.**—Charles L. Warner, Homer, Iowa.

175,801. **Gas Generators and Carbureters.**—Charles A. White, Hartford, Conn.

Reissues.

7,024. **Processes for the Manufacture of Illuminating-Gas.**—Fred'k. H. Eichbaum, Detroit, Mich.,

assignor, by mesne assignments, of two-thirds interest to J. T. Salter, Trustee, Chicago, Ill.

7,038. **Treating Cane-Juice.**—Francois Raudon, New Orleans, La.

7,039. **Chutes for Straining and Delivering Cane-Juice.**—Francoi Raudon, New Orleans, La.

7,040. **Insulating and Finishing Compounds for Conducting-Wires.**—Thos. L. Reed and Eugene F. Phillips, Providence, R. I.

Patents granted April 11, 1876.

175,822. **Refrigerators.**—Thomas Cornes and Charles C. Cornes, Brockport, N. Y.

174,827. **Air-Gun Machines.**—William S. Deeds, and George H. Deeds, Wilkinsburg, and James A. Deeds, Pittsburg, assignors of one-fourth their right to John Grazier, Pittsburg, Pa.

175,829. **Dyes.**—William H. Fish, Pascoag, L. I.

175,843. **Disinfecting Covers for Pails.**—S. M. Thompson, Providence, R. I.

175,844. **Galvanic Batteries.**—William M. Warden, John Muirhead and Josiah L. Clark, Westminster, England.

175,897. **Fruit Driers.**—William Aram, San José, Cal.

175,926. **Thermometers.**—Louis Marino Casella, London, Great Britain. [See NEW REMEDIES, page 118.]

175,929. **Blasting Compounds.**—Jas. Coad, Humboldt, Mich., assignor of two-thirds his right to E. G. St. Clair, and G. A. St. Clair, same place.

175,939. **Refrigerating Chambers.**—John J. Craven, Jersey City, N. J.

175,952. **Caps for Ærated-Liquid Bottles.**—John Edwards Hull, assignor to H. T. W. Monroe, Beverly, England.

175,970. **Compositions for Coating Coffee.**—Andrew J. Grauel, Philadelphia, Pa., assignor to himself and La Fayette Grauel, same place.

175,974. **Electro-Medical Plasters.**—R. P. Hall, Vineland, N. J.

175,976. **Soap, and Process for Manufacturing the Same.**—Geo. M. Harrison, New Orleans, La., assignor to A. A. Maginnis' Sons, same place.

175,980. **Measuring - Pumps.** — Charles Hildebrand, Youngstown, Ohio.

175,981. **Bottle-Stoppers.**—Matthias J. Hinden, Detroit, Mich., assignor to himself and Matthias Kersht, same place.

175,986. **Lubricating Compounds.**—S. B. Norton, Pownal, Vt., assignor of one-half his right to L. D. Johnson, Albany, N. Y.

176,002. **Insect-Destroying Compounds.**—George T. Johnson, Pittsylvania, C. H, Va.

176,011. **Lubricating Compounds.**—Isaac C. Knowles, Rochester, N. Y.

176,041. **Manufacture of Illuminating-Gas.**—George Olney, Brooklyn, N. Y.

176,066. **Processes for Annealing Glass.**—George E. Rogers, Chelsea, Mass.

176,067. **Processes for Toughening Glass.**—George E. Rogers, Chelsea, Mass.

176,092. **Preparations of Food.**—William D. Stone, London, England.

176,117. **Processes of Preparing Distillery Mash.** Alexis P. Zarrin, Moscow, Russia.

Patents granted April 18, 1876.

176,128. **Process for Treating Refuse Matter Containing Gums, Rosins, &c.**—Leander Butler, Chelsea, assignor to himself and Romulus Norwood, Rockport, Mass.

176,142. **Chestnut-Cleaning Machines.**—Nelson B. Little, Chicago, assignor to Henry T. Barnes, Washington, Ill.

176,146. **Refrigerating Apparatus.**—Jos. Parisette, Indianapolis, Ind.

176,156. **Carburetters.**—Andrew Wiggin, Boston, Mass.

176,157. **Grinding-Mills.**—Horace H. Witt, and Benj. L. Smith, Gadselen, Ala.

176,158. **Gas-Tight Joints for Retort-Lids.**—Austin C. Wood, Syracuse, N. Y.

176,170. **Machines for Pitching Casks.**—Albert F. Cobler, Albany, N. Y.

176,182. **Trusses.**—Rice W. Johnson and Lemuel L. Young, Fort Hodge, Iowa, assignors to Roice W. Johnson, same place.

176,620. **Apparatus for distilling Fresh Water from Salt.**—De Witt C. Anthony, Philadelphia, Pa., assignor to J. W. Redford, same place.

176,270. **Galvanic Batteries.**—George H. Bliss, Chicago, Ill.

176,288. **Prepared Wood for the Manufacture of Illuminating-Gas.**—Frederick C. Eichbaum, Detroit, Mich., assignor of two-thirds his right to W. W. Horton, J. S. Salter, J. H. Sheldon, and Jas. Aitkin, Chicago, Ill.

176,297. **Cleaners for Jugs, &c.**—Laura Gott, La Grange, Ohio.

176,329. **Apparatus for Pumping from Barrels.** Sidney E. Mallett, Corry, Pa.

176,340. **Carburetter.**—Alonzo W. Porter and Francis M. Grimes, New York, N. Y.

176,351. **Furnaces for Desiccating Animal or Other Matters.**—Geo. W. Rawson, Cambridgeport, Mass.

176,386. **Stills.**—Saul Van Syckel, Titusville, Pa.

176,393. **Grinding-Mills.**—Horace H. Witt and Benj. L. Smith, Gadsden, Ala.

176,395. **Carburetters.**—B. H. Woolman, Portland, Me.

176,406. **Malt Kilns and Germinators.**—Victor Noback, Prague, Austria.

176,411. **Hydrocarbon-Gas Apparatus.**—Byron Sloper, New York, N. Y.

Patents granted May 2, 1876.

176,782. **Apparatus for Dispensing Effervescent Liquids.**—Charles Greiner, New York, N. Y.

176,813. **Methods of Recovering Nitric Acid used in Separating Gold and Silver.**—Robert E. Rogers, Philadelphia, Pa.

176,817. **Fluid Meters.**—Edward B. Talcott, Wardell Guthrie, and Alfred Guthrie, Chicago, Ill.

176,851. **Apparatus for Heating and Mixing Oleaginous Seeds.**—W. M. Force, Newark, N. J.

176,852. **Devices for Removing Wires from Bottle-Corks.**—John Franz, Croton Falls, N. Y.

176,856. **Japan Compositions.**—A. Gigrich, Amityville, N. Y.

176,895. **Abdominal Supporters.**—Cyrene Smith, New York, N. Y.

176,896. **Rectifying Apparatus.**—Joseph C. Smith, Philadelphia, Pa., assignor of one-half his right to Geo. W. Middleton, same place.

176,898. **Compositions for Preventing Acid Fermentation** —Julius J. Suckert, New York, N. Y. Assignor to Gelien & Co., same place.

176,924. **Extracting Saccharine and other Vegetable Juices.**—Louis F. G. Bouscaren, Cincinnati, Ohio.

176,953. **Syringes.**—George J. Harris, Brooklyn, E. D., N. Y.

176,955. **Carburetting Gas Apparatus.**—James G. Haymaker, Pittsburg, Pa.

177,003. **Compounds for Beverages.**—H. Reibestein, New York, N.Y. (Filed Feb. 14, 1876.) A compound for making beverages, consisting of caramel, sugar, Glauber's salt, tartaric acid, chloride of sodium, tincture of red pepper, extract of quassia and water.

Re-issued.

7,096. **Heavy Hydro-carbon Oil for Illumination.**—Rufus S. Merrill, Cambridge, Mass., assignor by mesne assignments, to William B. Merrill, Joshua Merrill, and Rufus S. Merrill. Patent No. 100,915.

Patents granted May 9, 1876.

177,056. **Galvanic Batteries.**—Louis P. Brunelle and Sigismund Mohr, Quebec, Canada.

177,104. **Carburetters.**—William S. Deeds and George H. Deeds, Pittsburg, Pa., assignors of one-half their right to James A. Deeds and John Grazier, same place.

177,116. **Thermostats.**—John Guest, Brooklyn, N. Y.

177,185. **Nursing-Bottles.**—Samuel A. Whitney, Glassborough, N. J.

177,209. **Supporting Rests for Invalids.**—Paschal T. Clement, Belfast, Me., assignor of three-fourths his right to John Homer, same place.

177,251. **Health Lifts.**—H. U. Johnson, Orwell, Ohio.

177,267. **Liquid Measures.**—J. D. Muller, New York, N. Y.

177,273. **Voltaic Piles or Batteries.**—Isaac L. Pulvermacher, London, England, assignor to John Edward Hetherinton, Cincinnati, Ohio.

177,274. **Volta-Electric Apparatus.**—*Ibid.*

177,275. **Volta-Electric Apparatus.**—*Ibid.*

177,276. **Volta-Electric Appliances.**—*Ibid.*

177,287. **Portable Bath-Tubs.**—Arnold Seligsberg, New York, N. Y.

177,301. **Processes of Treating Gypsum.**—C. T. Tompkins, Canada.

177,315. **Manufacturing Illuminating Gas.**—William H. Tupper, New York, N. Y.

Patents granted May 16, 1876.

177,344. **Syringe Box.**—Morris Mattson, New York, N. Y.

177,347. **Separating Paraffine from Hydro-carbon Oils.**—Jos. B. Meriam, Cleveland, Ohio.

177,351. **Faucets and Funnels for Oil Cans.**—Frederick Ochs, New York, N. Y.

177,357. **Liquid Measures.**—T. Scantlin, Evansville, Ind.

177,387. **Salves.**—Ivory W. Emerson and George A. Emerson, Lewiston, Me. (Filed Jan. 27, 1876.) A compound of aqua fortis, blue vitriol, glycerine, alum, red precipitate, sulphur, and hog's lard.

177,415. **Spectacle Cases.**—John Miser, Washington Court House, Ohio.

177,534. **Meat Extracts.**—Charles Meusman, St. Louis, Mo., assignor of two-thirds his right to Alex. D. Garden and Jos. W. Keller, same place. [Filed Dec. 29, 1875.] A process for preparing a concentrated meat-extract, by the boiling of flesh and brains, and the subsequent addition of spirits.

177,535. **Trusses.**—T. M. Merck, Gainesville, Ga., assignor to himself and D. E. Banks, same place.

177,569. **Abdominal Supporters.**—Fleetwood, S. Sale, Dillesborough, Ind.

177,580. **Apparatus for Washing and Absorbing Gas.**—Ernest Solvay, Brussels, Belgium.

177,599. **Cork Fasteners for Bottles.**—Ephraim Weatherbee, Worcester, Mass.

177,607. **Process for Making Soap.**—A. J. Woodworth, Penn Township, Chester Co., Pa.

Reissued.

7,113. **Apparatus for Drawing Effervescent Liquids.**—Thomas Warker, New York, N. Y. Patent No. 144,809, dated Nov. 18, 1873.

Patents granted May 23, 1876.

177,614. **Remedies for Coughs, Colds, etc.**—M. Battaglia, Boston, Mass. [Filed Mar. 7, 1876.] A cough compound formed of St. John's bread (*Ceratonia siliqua*), brown sugar, dried figs, licorice root, elder-flowers, and water.

177,632. **Nasal Douches.**—Charles E. Gassin, Robert C. Gray and Joseph R. Gassin, New York, N. Y.

177,733. **Liquid Meters.**—H. S. Maxim, Fanwood, N. J., assignor of one-half his right to Alonzo T. Welch, Brooklyn, N. Y.

177,764. **Processes for Obtaining Isinglass.**—Isaac Stanwood, Gloucester, Mass.

177,790. **Liniments.**—George Bennet, Helena, Mont. [Filed Apr. 7, 1876.] A compound of croton oil, iodine, oil of origanum, Spanish flies, and spirits of turpentine, forming a liniment for rheumatism.

177,794. **Health-Lifts.**—William B. Blake, Canton, Ohio, assignor of two-thirds his right to G. D. Saxton and Zebulon Davis, same place.

177,827. **Gyro-Evaporators.**—Edward H. Gouge, New York, N. Y.

177,848. **Processes for Making Illuminating Gas.**—Erasmus J. Jerzmanowski, New York, N. Y., assignor to Edward Stern, same place.

177,866. **Molds for Pills.**—J. A. McFerran, Philadelphia, Pa.

177,867. **Feeding Device for Pill-Machines.**—J. A. McFerran, Philadelphia, Pa.

177,898. **Faucets.**—Anton Tomeska, Iowa City, Iowa.

PRESCRIPTIONS AND FORMULÆ.

Solution of Protobromide of Iron (Ferrous Bromide):

Bromine	20 parts.
Iron filings (or wire, cut)	10 "
Distilled water	53 "

Introduce the water into a flask, add the bromine, and place the flask into cold water; then add the iron filings, or wire, in small portions at a time, and close the vessel with a cork to prevent the escape of bromine vapors, and agitate occasionally. When the reaction is finished and the solution of a bright green color, filter it into a tarred bottle, and wash the filter with sufficient distilled water to make the resulting product weigh 80 parts. To this add 40 parts of glycerine. Keep it in the dark, in black bottles containing some bright iron wire.—(*Limousin.*)

Syrup of Protobromide of Iron:

Solution of protobromide of iron	12 parts.
Simple syrup	200 "
Syrup of acacia	200 "
Syrup of orange flowers	10 "

One fluid ounce of this syrup contains about 3 grains of ferrous bromide.

Pills of Protobromide of Iron:

Bromine	15 parts.
Iron filings (or wire)	10 "
Distilled water	40 "

Prepare the solution of ferrous bromide as above, except that it should be filtered into a bottle containing 4 parts of

honey and 2 parts of glycerine. Evaporate the solution in presence of iron filings or wire, until it weighs 30 parts. Place this liquid into a mortar and add to it a mixture of equal parts of powdered liquorice and marshmallow root, (about 25 or 30 parts). Make a homogeneous pill mass and divide it into 200 pills for every 228 grs. of bromine employed. Each pill contains 1¼ gr. of ferrous bromide. These pills are to be rolled in reduced iron, dried, and then coated with an ethereal solution of mastic or tolu, like Blancard's pills.—(*Limousin.*)

Cod Liver Oil with Quinia:

Quinia sulphate	3 parts.
Sulphuric acid	4 "
Water of ammonia.	
Distilled water	ää q. s.
Purified oleic acid	30 parts.
Cod-liver oil	900 "

Dissolve the sulphate of quinia in the sulphuric acid, diluted with 120 parts of water; add ammonia to slight excess; transfer the precipitated quinia to a strainer, wash it and dry it. Then dissolve it in the oleic acid, and mix it with the cod-liver oil. A tablespoonful represents about 0.05 gm. ($\frac{7}{10}$ gr.) of sulphate of quinia.

Ointment for Ulcerated Variolous Pustules:

Dr. Noël Guéneau de Mussy recommends to apply the following:

℞. Acidi tannici
Zinci oxid ää gr. xx.
Hydr. chlor. mit gr. ii
Extr. opii gr. i
Cerati gr. ccc.

Between the applications the parts are to be washed with water containing a few drops of tincture of benzoin.

Phosphorus Pills.—Messrs. Allen and Hanbury send the following communication to the *Pharm. Journ. & Trans.* (May 20th, 1876):

Whatever the merits or demerits of the pil. phosphori B. P., it is certain that it has failed to obtain the approval of any large number of prescribers, and is not likely ever to be generally used.

In the absence of any published formula of a thoroughly satisfactory nature, we suggest the following, which, to avoid confusion with an advertised nostrum for which we believe it to be an efficient substitute, we propose to call *Pil. Phosphori cum Sapone.*

℞. Phosphori ii grs.
Carbon. Bisulph. x m. vel. q. s.

Solve:

Pulv. Saponis dur.
Pulv. Guaiac. Res. ää xxxv. gr.
Glycerin xii gtt.
Pulv. rad. Glycyrrh. xii gr. vel. q. s.

Ut. fiat massa gr. c. To be divided into pills of the strength required, and varnished or "coated" in the ordinary way.

The mass thus formed is of good consistence, easily manipulated, readily miscible with other remedies, and, what is most important, readily soluble. It is hardly necessary to add, that the very volatile bisulphide soon evaporates.

In the next number of the same Journal (May 27) Mr. T. Haffenden remarks: These pills are very often in request now, and seeing Messrs. Allen and Hanbury's note in last week's Journal, I venture my own experience. I have been very successful with a formula of Dr. Corfe's, and he tells me he is quite satisfied with them, and finds unmistakable evidence of the free phosphorus in their therapeutical effect. They are composed of:

Mucilage,
Powd. Sugar,
Reduced Iron,
Quinine,
Phosphorus.

By means of a water-bath an emulsion is made of the phosphorus and mucilage, the powders mixed in while still warm, and then worked up in the mortar in the usual way; they require to be quickly coated, and then I find they keep for a long time; some in stock now, have been made six months, and are quite soft, and the phosphorus fumes still rising quite perceptibly to the nose and the naked eye, thought here is only $\frac{1}{40}$ grain in each pill. I have also had to dispense phosphorus in mixtures, and have found the emulsion with the mucilage of gum arabic of the pharmacopœia to answer quite satisfactorily.

Another late formula, which appears to yield a good product, was proposed by Eli Lilly (*Am. Journ. Pharm.* 1876, 56), viz.:

Syrup U. S. P.	60 parts.
Wheaten flour	340 "
Phosphorus	6 "

Weigh the Syrup in a stout sound bottle of sufficient capacity to hold one-fourth more than the amount of syrup used. Place the bottle in a water-bath, and raise the temperature to 150° F. Drop the phosphorus into the warm syrup, and as soon as melted, close the bottle with a good cork, take it from the bath, and, holding it upright, give a gentle whirling motion until the phosphorus is divided into small globules, when it must be violently shaken till cold. Having the flour finely sifted and placed in a mortar, pour in the mixture of syrup and phosphorus, and rapidly form the mass, which, when completed, may be packed down in small glazed earthenware jars, and tin foil placed under the cover to retain the moisture and exclude the air. One grain of this mass contains $\frac{1}{150}$ (nearly) of a grain of phosphorus.

Elastic Damar-Varnish for Paper-labels, Maps, Photographs, etc.—An elastic flexible varnish for paper, which may be applied without previously sizing the article, may be prepared as follows: Crush transparent and clear pieces of damar into small grains, introduce a convenient quantity—say forty grains—into a flask, pour on it about 180 gm. of acetone, and expose the whole to a moderate temperature for about two weeks, frequently shaking. At the end of this time, pour off the clear saturated solution of damar in acetone and add to every four parts of varnish, three parts of rather dense collodion; the two solutions are mixed by agitation, the resulting liquid allowed to settle, and preserved in well-closed vials. This varnish is applied by means of a soft beaver-hair-pencil, in *vertical* lines. At the first application it will appear as if the surface of the paper was covered with a thin white skin. As soon, however, as the varnish has become dry, it presents a clear shining surface. It should be applied in two or three layers.

This varnish retains its gloss under all conditions of weather, and remains elastic; the latter quality adapts it especially to topographical crayons, drawings, and maps, as well as to photographs.—*Pharm. Centralh.* 1876, 173.

Preparations of Iodoform.—Dr. J. H. Johnson's formulæ for iodoform suppositories and glycerole of iodoform are as follows:—*Iodoform suppositories.*—Iodoform (in powder) 30 grains, Oil of Theobroma, 7 drachms; triturate the iodoform with half a drachm of the oil, add to the remainder the oil previously melted, and make six suppositories. *Glycerole of Iodoform.*—Iodoform, 40 grains, glycerine, 1 ounce. Triturate the iodoform with the glycerine.

Syrupus Phosphori, (*Méhu*).

Ol. Phosphorat. (1 in 100) 0.10 gm.		1½ gr.
Syr. Acac.	30.00 "	463 "
Aq. Menth. Piper.	30.00 "	463 "

Into a flask of about 60 c.c. (2 fl. ℥) capacity, introduce 30 gm. (463 grs.) of syr. acaciæ, and shake it around the flask; then introduce the phosphorated oil, agitate forcibly, and add the peppermint water. Shake before administering.

To Disguise the Taste of Castor Oil.—Mix ten grains of powdered gum tragacanth with two and a half drachms of water; upon this pour very slowly, drop by drop, half an ounce of castor-oil, stirring constantly with the pestle; when the mixture is complete, add about three ounces of water, an

ounce of syrup, and a few drops of laurel-water. In this manner a white emulsion is obtained, in which the taste of the castor-oil is (according to the *Paris Medicale*) quite masked and replaced by the perfume of the laurel-water.

Professor Gibert's Formula, for what is called, in the Paris school, the Mixed Treatment of Syphilis, is as follows:—Biniodide of mercury, one gramme; iodide of potassium, fifty grammes; water, fifty grammes. Dissolve the salts in the water, and strain the solution; then add simple syrup (cold) 2,400 grammes. The dose is a tablespoonful. As the quantity represents twenty-five grammes of the syrup, each tablespoonful will therefore contain one centigramme of biniodide of mercury and fifty centigrammes of iodide of potassium. This mixture, known by the name of Syrup-Gibert, is the favorite hospital remedy for syphilis in all its stages, and is preferred to the pills of the protoiodide of mercury prescribed by the father of French syphilographers, M. Ricord, as a more manageable and safer preparation.

A New Mucilage.—The *Journal de Pharmacie* states that if to a strong solution of gum arabic, measuring 8½ fluid ounces, a solution of 30 grains of sulphate of aluminum dissolved in two-thirds of an ounce of water be added, a very strong mucilage is formed, capable of fastening wood together, or of mending porcelain or glass.

Solution of Salicylic Acid.—Emlen Painter, Ph.D. (*Pacific Med. and Surg. Jour.*, April, 1876) suggests the following formula, which contains two grains of the acid to the fluid drachm: acid. salicylic., gr. xxxii; sol. ammon. acet., oz. ii. Dose, a teaspoonful, to be increased or diminished as required.

Scrofulous Sores.—A Scotch clergyman states in the *Edinburgh Medical Journal* for March, 1876, that three grains of corrosive sublimate in a pint of whisky constitute an almost infallible remedy in scrofulous sores or runnings. A rag dipped in this twice or thrice a day should be kept on the ulcers until healed.

Toothache Remedy.—Mr. C. A. Guild writes to *The Clinic:* "In last week's issue you quote Dr. Lardier on collodion for tooth-ache. I have found collodion mixed with enough carbolic acid to form a jelly-like mass to be an excellent remedy for tooth-ache. About equal parts will form a "stiff" jelly, which may be taken on the end of a pine stick and placed in the cavity of the aching tooth. The pain will be relieved almost instantly if it depends on an exposed nerve. I have found this the most reliable and convenient remedy I ever tried."

To Disguise Tannin.—The *Med. and Surg. Reporter* gives the following answer, by Professor Maisch, to a query as to "How can the astringent taste of tannin be overcome without affecting its medicinal virtues, when dissolved in water acidulated with acetic or muriatic acid?"

"In answer to the query as to how the taste of tannin can be disguised, I have to say that if a *complete masking* of the astringent taste is intended, I do not believe that can be attained; but if the astringency is to be modified so as to become palatable, I do not think that the task is very difficult. Cinnamon, cloves, sassafras bark and other aromatic drugs contain considerable amounts of tannin, yet their astringent taste is not unpleasant—it being modified by the aromatic principles. A large amount of tannin is found in wild cherry bark, yet the cold infusion is not very unpleasant, owing to the bitter almond taste developed, but the taste of the syrup is more agreeable on account of the sugar contained therein.

"The agents best adapted for modifying the astringency of tannin therefore appear to be aromatics and sugar, used separately or combined. This plan has been adopted in several fluid extracts and syrups of the United States Pharmacopœia, and is well illustrated by the aromatic syrup of galls, used to some extent in this city, and which contains in 8 fluid ounces the tannin and aromatic principles of 4 drachms of nutgalls and 2 drachms each of cinnamon and mace. This syrup contains over 15 grains of tannin in the fluid ounce, but is readily taken by infants."

Liquid Glue.—One part of liquid phosphoric acid (H_3PO_4), of spec. gr. 1.200 is diluted with two parts (by weight) of water, and nearly saturated with ammonium carbonate; the liquid, which must still react slightly acid, is further diluted with one part of water, placed into a porcelain-capsule upon the water-bath, and heated with enough best glue, until a thick syrupy solution has been produced, which must be preserved in well-stoppered bottles. Addition of glycerine or sugar acts injuriously by causing the solution to gelatinize.

NOTES, QUERIES AND ANSWERS.

[*Under this heading we shall, to the best of our ability, endeavor to answer such questions addressed to us as come within the scope of this journal, providing they are accompanied by the name and address of the writer. Answers to queries received after the 5th of the month will lie over until the next issue.*]

Qu. (Brooklyn).—To impart to *gilded* articles a *reddish* hue, dip them into a melted mixture of 32 parts of yellow wax, 2 parts of verdigris, 3 of red bole, and 2 of alum, then burn the mixture off over a naked charcoal fire, wipe and polish. During the heating, the cupric acetate (verdigris) is reduced to metal, which forms a reddish alloy with the gold.

A. R. (N. Lond.).—A superior *Tomato-sauce* may be prepared as follows: To 4 quarts of bruised tomatoes add ½ lb. of salt, and allow to stand for three days, then express the juice. To each half-gallon of juice add 4 oz. of shallots, and ½ oz. black pepper; boil for half an hour, strain and add: mace, allspice, ginger, nutmegs, of each ½ oz., coriander (and, if desired to impart color, cochineal) of each ½ oz. Simmer gently for half an hour, strain, and, when cold, bottle it.

R. A. D., M. D. (N. Y).—Our confidence in the "*Baroscope,*" is exceedingly limited. You are probably aware that it consists of a solution of camphor, saltpetre and sal ammoniac in alcohol of about 52 per cent. and enclosed into a tightly corked glass tube, so that the air has no access to it. In a limited degree it may occasionally indicate variations of *temperature*, but it cannot show variations of *pressure*, and the word "*Baro-scope*" is therefore a misnomer. Baroscope, is identical with Barometer. But as the instrument is popularly believed to foretell good or bad weather, it should be spelled "*Paroscope,*" from *πάρος, before* or *beforehand.*

Z. W. (Boston).—The information you ask for on *Koumiss* or *Kumyss* may be found on page 115 of the Proc. of Am. Pharm. Assn. for 1875, as well as in a paper by Adelheid Lukanin, M.D. in the *Medical Record* of May 27, 1876. The literature on the subject is very large, the chief sources of information being the following: *Neumann*, Chymiæ medicæ dogmat. experimentalis, Jena, 1749. *Oscertskowsky*, De spiritu ardente ex lacte bub., Arg. 1778. *Lond. Med. Journ.* 1789. *Edinb. Trans.* 1788. *Med. Chir. Zeitsch.* 1790. *Schill*, über Milchbranntwein, 1833. *Schmidt's Jahrb.* 1843. *Med. Zeit. f. Russland*, 1846, 1853. *Spängler*, über die Kumys-kur, 1856. *Wirth*, über Milchwein, etc. 1865. *Bagojawlensky*, Man. prat. de l'emploie et de la prép. de K. 1866. *Lersch*, Die Kur mit Milch. etc. 1869. *Stahlberg*, Der Kumys, 1866, and many others, chiefly Russian and Polish, which we will indicate to you by letter, if you desire.

Aug. B. (Alb.).—An *alcoholic solution of shellac* may be clarified by adding to it as much finely powdered chalk as it contains shellac, and setting it aside for a few hours at a

temperature of about 60° C. (140° F.); then it is allowed to cool to the ordinary temperature, and in a short time at least three-fourths of the solution will have cleared entirely, while the remainder can be easily filtered.

Arth. M.—*Gmelin's salt* is potassium ferricyanide, or red prussiate of potash.

J. W. T. (St. L.)—*Barley-sugar* is so called because it was first obtained from a decoction of barley. It may be prepared as follows: 4 troy ounces of selected and washed barley are boiled with 1 quart of water to 1 pint, ½ lb. of refined sugar is added, and the whole boiled until it acquires the proper consistence. It is then poured out upon a marble-slab or copper-plate slightly oiled with oil of almonds, and cut into strips, which are usually twisted upon themselves. Instead of decoction of barley, beer-wort, or pure sugar may be employed. To obtain a good product, the temperature should be as near 350° F. (177° C.) as possible. By long keeping, especially in damp air, this variety of sugar becomes again crystalline and opaque. This may be obviated by keeping it in a receptacle with a false bottom containing unslaked lime.

V. S. (Chicago).—*Balsam of Tolu* is *not* soluble in benzine. Neither is it soluble in petroleum-ether (or naphtha), carbon disulphide, or solution of sodium carbonate. But it is soluble in alcohol, chloroform, and caustic potassa solution. Ether dissolves it only partially.—

It is very doubtful, whether *smallpox* was known to the ancient western nations. Some passages in Galen's and Oribasius' works have been supposed to refer to smallpox and to measles, and even passages in much older writings have been thought to refer to it (see *Med. Record*, April 15), yet the first writer whose account of it has come down to us is Rhazes (Al Rasi, died 923). In an Arabian MS. preserved in the University of Leyden, it is stated that smallpox and measles first appeared in Arabia about the year 572 A. D. But the disease existed and was well known in China and India many centuries previously.

ITEMS.

College of Pharmacy of the City of New York.—The regular monthly meeting of the Board of Trustees, was held on Thursday, June 1st, at 8 P. M. The ordinary routine business having been transacted, the Examination Committee handed in a report, drawn up by its chairman, in regard to certain questions submitted to them. This report recommends some important changes and innovations in the manner of examination, preliminary requisites of admission of students, and certificates of proficiency. Owing to want of time, and the importance of giving to the various points a serious and calm consideration, it was laid upon the table until next meeting, and we shall postpone its discussion, until final action has been had on the subject.

The following members of the Board were appointed a Committee to receive any distinguished Pharmacists, who may visit our City during the Centennial year: Messrs. P. Balluff, D. C. Robbins, F. Hoffmann, Ph.D., Wm. Neergaard, M.D., H. A. Cassebeer jr., G. Ramsperger, Chas. Rice.

American Chemical Society.—The regular session of this Society, was held in the University Building, on Thursday, June 1st, at 8 P. M. Prof. C. F. Chandler presiding.

Mr. P. Casamajor read a paper on the amalgamation of iron and some other metals. Steel and soft iron are readily amalgamated, by allowing them to come in contact with mercury containing a small quantity of zinc, or with sodium-amalgam and zinc. The useful application of this was pointed out by one of the gentlemen present, namely, the preservation of the interior of iron-ships, the last speaker stating that the experiment may be easily made on the small scale, by selecting two bright iron pots, introducing into one of them some mercury with a few pieces of zinc, and filling both with salt water. The pot containing the mercury will remain bright where the salt-water touches it, for many months, while the other will be speedily corroded.—Isidor Walz, Ph.D., read a paper on the general occurrence of vanadium in American magnetites. Some 25 ores were examined, and almost all were found to contain vanadium in varying quantities. The other papers were by Prof. P. Schweizer, on the action of rain-water on lead pipe; on the cause of discrepancies in the estimation of silver in pig-lead (accompanied by a diagram of such a "pig," giving by numbers referring to certain portions thereof the corresponding silver value in ounces per ton. The variation of silver was shown to be exceedingly great, sometimes a difference of 20 ounces per ton being noticeable in almost contiguous places). H. Endemann, Ph.D. "On Bismuth in Lead;" and H. W. Mitchell, "Preliminary Notes on Litmus."

Technical Uses of Infusorial Earth.—The almost inexhaustible deposits of this substance (otherwise termed "Kieselguhr") near Oberohe and Hützel on the Luneburg heath in Germany, promise to become a valuable material for many technical purposes. Being almost pure silica in a state of finest division, it is applicable for the manufacture of water glass, cement, artificial stone, and ultramarine. Owing to its exceedingly low conducting power for heat, it is by far the best material for padding boilers, steam and water pipes, filling of safe-walls, and similar purposes; indeed, Prof. A. W. Hoffmann, in his report on the Progress of Chemistry during the last Decennium, says that its power in this direction approaches the marvellous. Being capable of absorbing large amounts of liquid, as much as five times its own weight, it is an excellent material for clarifying, for the manufacture of dynamite and other nitro-glycerine products, and the preparation of cheap colors, as it may be dyed like cotton. Being very bulky and exceedingly light, it is very useful for packing frangible articles; and in consequence of its fineness and freedom from grit, it is one of the best and the cheapest polishing materials for glass or metal.

Straw Paper in Havana Cigars.—Some New York papers, not long ago, stated that every steamer clearing from New York for Havana carried large quantities (2,000 to 5,000 reams, occasionally as much as 30,000 reams) of straw-paper among its cargo. It had long remained a secret for what purposes this paper was employed, but its use had lately leaked out, namely, for the manufacture of certain brands of Havana cigars, in which this paper, impregnated with the juice of tobacco-stems, was partially used as filling; and it was asserted that bits of this paper are often met with in these cigars. Dr. Hager, the editor of the *Industrie-Blätter*, comments upon this statement, and thinks it not at all impossible, provided the straw-paper be specially prepared from suitable materials. A number of years ago it was recommended to treat paper intended for cigarettes with dilute water glass solution (potassium silicate), whereby all odor on burning is destroyed. He suggests that the same agent might have been employed in this case.

Chinese Ideas of Photography.—During Lieutenant-Colonel Przewalsky's travels in Mongolia and the land of the Tangutes (1870-73), while at Dün-yüan-in, he was presented to the Amban (prefect), who asked him if it were true that the liquid used by photographers (meaning thereby the silver solution or "bath") was obtained from human eyes! The rumor extended then all through Central Asia, as far as India, that the Sisters of Mercy of the various Eastern missions who instruct children were in the habit of pricking out their eyes, to obtain the much-coveted fluid, and the excited populace in Thian-shan, in 1870, killed twenty French and three Russian Sisters.

Novel Minimum and Maximum Thermometers.—According to F. Ducleaux, a homogeneous mixture of several liquids may often be separated into several layers by a slight change of condition, such as a fall or rise of temperature. A mixture of 15 parts of amylic, 20 of ethylic al-

cohol, and 32.9 of water remain homogeneous at or above 20° C., but with the slightest fall of temperature it divides into two layers, which do not reunite unless shaken up. By varying the quantity of water, the temperature of separation may be altered. Such a solution will therefore afford a minimum thermometer. A mixture of 10 parts of ether, 6 of ordinary methylic alcohol, and water, is transparent at low temperatures, but when heated above a certain point, which varies with the quantity of water, it becomes turbid and resolves itself into two layers. With this liquid, then, maximum thermometers may be constructed.

A new kind of Safety Lamp.—The police and watchmen of Paris, especially those stationed in warehouses and factories containing inflammable materials, have for some time been provided with a new safety-lamp. A small piece of phosphorus, about the size of a pea, is introduced into a small bottle of cut glass, and boiling olive oil poured into it, until it fills about ⅓ of the bottle; the bottle is then immediately closed with a good cork. If it is desired to use the lamp, the stopper is lifted for a moment, to allow the access of air. Immediately the empty space in the bottle is illuminated, and sheds a clear light, resembling that from a so-called dark-lantern. As soon as the intensity of the light diminishes, a renewed lifting of the stopper will again revive it. Such a lamp may be used for about six months before requiring renewal.

A Mountain of Salt.—A mass of 90,000,000 tons of pure solid compact rock salt, located on an island 185 feet high, which rises from a miserable sea marsh on the route from Brashear to New Iberia, up the river Teche, in Louisiana, is one of the wonders of the world. How this island, containing over 300 acres of excellent land, ever came into existence in such a locality is a matter of conjecture. Vegetation is prolific and the scenery is beautiful and varied. Here is an immense bed of pure rock salt, whose extent is as yet only estimated, and scientific men are puzzled.

Pyrethrum Carneum.—M. Jousset de Bellesme has recently presented to the Société de Biologie a new poison, extracted from the insect-powder made from *Pyrethrum carneum*. He asserted that the toxic effects of this powder upon insects is not due to the mechanical obstruction of their stigmata, but to a crystalized substance, an alkaloid, obtained from it, specimens of which he exhibited to the society.—*Boston Medical and Surgical Journal.*

A French Doctor advertised a cosmetic—"the balm of a thousand flowers." It finally got him into court, charged with swindling the purchaser, because it would be impossible to collect and combine the odor of "one thousand flowers." But the witty Frenchman, with a ready smile, put them down with the reply "Honey,"—which was one of the ingredients in the "balm."

A New Insecticide.—At the last meeting of the Royal Horticultural Society, Mr. J. T. Boscawen called attention to an insecticide composed of camphor dissolved in methylated spirits to saturation, and mixed with soft-soap to the consistence of cream. When diluted so as to be fit for use with a syringe, this had been found a most efficacious substitute for fumigating in the case of mealy-bug, scale, red-spider, etc.

Prize for an Oil-Extracting Machine.—A prize of 2,000 lire is offered by the authorities of Reggio, Calabria, for the best apparatus for extracting the essential oil of Bergamot. The conditions are strength and cheapness in the apparatus itself, combined with capacity for producing the largest quantity of essence in the shortest time without detriment to the color, purity, and fragrance of the product.

Warning.—A case of poisoning has occurred in a family living in the upper part of the City, from partaking of tomato-catsup purchased in the original bottle at a neighboring grocer's. The contents of the bottle were analyzed, and found to contain lead. Some members of the family are still suffering. As we understand that legal proceedings are about to be taken against the manufacturer and seller, we deem it best to withhold the names of the latter for the present.

Vulcan Glass.—Since Roger de la Bastie made known his process of toughening glass, a number of "inventors" have sprung up in various countries, claiming the honor of having discovered processes accomplishing the same end, but which are all based upon the principle of immersing or swathing heated glass in or with some liquid or gaseous agent. A German inventor, Mr. Pieper, has sold his method of producing toughened or "*Vulcan glass*," to German glass-makers for the sum of 100,000 marks. He employs an atmosphere of super-heated steam for the purpose. Numerous quarrels are pending at present among the various discoverers and patentees.

Pharmaceutical Statistics of Great Britain.—The total number of registered chemists and druggists in England, Wales, and Scotland was in February, 13,276, of whom however many are associated together in one firm, as partners, or proprietor and assistants, so that the number of shops is much smaller than might be inferred from that figure.

Progress of Hippophagy—In 1866 the first market for the sale of horse flesh was opened in Paris. In 1874 the Parisians consumed 3659 horses, 496 asses and 29 mules, which yielded 1,295,520 kilos of meat, exclusive of the hearts, tongues, livers, etc. On the 1st of Jan. 1875, fifty markets for the sale of horse flesh existed in Paris.

The College of Pharmacy of Paris.—It is estimated that the expense of establishing the College of Pharmacy at Luxembourg will be 3,200,000 francs. The botanical garden will occupy a surface of 5,000 metres, and the entire establishment 15,000 square metres. The number of pupils which can be accommodated will be 500.

Henri Buignet, Professor of Physics in the Paris School of Pharmacy, died on May 9th. He was a member of many learned societies, and was one of the editors of the *Journal de Pharmacie et de Chimie*, as well as General Secretary of the Paris School of Pharmacy.

California Olive Oil.—In drawing attention to the fact that California olive oil is finding a market in this country, a local paper says; "Owing to a prejudice against home products the agents have been obliged to label it Plagniol, a well-known French brand."

A New Pavement in Paris.—There is an experiment being tried in Paris with an iron pavement. On a foundation of masonry, plates of cast iron four centimetres thick are embedded in asphalt so as to form a sort of iron mosaic.

Mich. Donovan.—The death is announced, at an advanced age, of Mr. Michael Donovan, who, as the inventor of "Donovan's Solution," will long have his name perpetuated in pharmacy.

Dr. Vleminickz, the President of the Belgian Academy of Medicine, and the originator of the Vleminickx's Solution, which is so widely used on the continent in the treatment of scabies, has just died at Brussels, aged 76.

Madame A. de Rothschild, of Naples, has founded a home for convalescents of a capacity of fifty beds at Petit-Saconex [Avignon ?].

Night Medical Service at Lyons.—Like St. Petersburg and Paris, Lyons is to have a night medical service, and 5,000 have been devoted to its organization.

St. Bartholomew's Hospital, London, is said to consume during a year, about 700 gall. of cod-liver oil, 800 lb of castor-oil, and 1,200 lb of Epsom salts.

M. Berthelot, the well-known French chemist, has been appointed Inspector of Public Instruction in place of M. Balard.

Telluric Silver and Telluric Lead, both free from iodine and arsenic, have been discovered in Chile.

"The Analyst" is the title of a new publication issued by the Society of Public Analysts of Great Britain.